

## **4. Environmental Compliance and Permit Summary**

This chapter includes information about policies and regulations that are applicable to the proposed Project and relevant to the environmental impacts evaluated within the resource chapters. It includes identified regulatory requirements that could be applied to the proposed Project. The first section contains federal, State, and regional laws that are applicable to more than one environmental resource evaluated in this DEIR/EIS, followed by sections that are specific to each of the resource chapters (i.e., Chapters 6 through 31).

### **4.1 General**

#### **4.1.1 Federal Plans, Policies, and Regulations**

##### **4.1.1.1 National Environmental Policy Act**

The National Environmental Policy Act (NEPA), which was signed into law on January 1, 1970, establishes a national environmental policy and goals for the protection, maintenance, and enhancement of the environment, and provides a process for implementing these goals by the federal agencies.

NEPA requires that all federal agencies use all practicable means to create and maintain conditions under which humans and nature can exist in harmony. NEPA further requires that federal agencies incorporate environmental considerations into their planning and decision making using an interdisciplinary approach.

NEPA's implementing regulations are administered by the Council on Environmental Quality (CEQ) (40 Code of Federal Regulations [CFR<sup>1</sup>] 1500 et seq.). Section 1502.14 of the CEQ Regulations for Implementing NEPA requires that EISs rigorously explore and objectively evaluate all reasonable alternatives to the project, including the No Action Alternative and reasonable alternatives not within the jurisdiction of the lead agency.

#### **4.1.2 State Plans, Policies, and Regulations**

##### **4.1.2.1 California Environmental Quality Act**

The California Environmental Quality Act (CEQA) statute was passed in 1970 shortly after the passage of NEPA. CEQA institutes a statewide policy of environmental protection which requires State and local agencies to analyze and disclose environmental impacts of all projects and to mitigate impacts to the extent feasible.

CEQA Guidelines §15126.6 requires that EIRs describe and evaluate a reasonable range of alternatives to a project, or to the location of a project, which would feasibly attain most of the basic project objectives and avoid or substantially lessen significant project impacts. CEQA also requires that the No Project Alternative be analyzed.

#### **4.1.3 Local Plans, Policies, and Regulations**

According to California Government Code §65300, every county and city in the State of California is required by law to adopt a general plan for the "physical development of the county or city, and any land

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<sup>1</sup> The Code of Federal Regulations annual edition is the codification of the general and permanent rules published in the Federal Register by the departments and agencies of the Federal Government. It is divided into 50 titles that represent broad areas subject to Federal regulation.

outside its boundaries which bears relation to its planning”. Called the “constitution for future development” by the California Supreme Court, the General Plan is a guideline for growth and policy decisions. The General Plan is intended to serve as a comprehensive long-term document establishing land use and development policy for the next 10 to 20 years.

#### **4.1.3.1 Glenn County General Plan**

The most recent General Plan for Glenn County was adopted in 1993 and provides a template for development in the unincorporated areas of the county, outside of the communities of Willows and Orland. The Plan addresses land use, transportation, housing, open space, conservation, safety, noise and economic development.

#### **4.1.3.2 Colusa County General Plan**

Colusa County recently adopted a new General Plan, replacing the previous 1989 General Plan. The 2012 Plan provides a framework for decisions on growth, development, and conservation of open space, consistent with the desires of the County’s residents and businesses. The Plan contains specific elements including agriculture, transportation, community character, conservation, economic development, housing, land use noise, open space, public services and facilities, and safety. The Plan also includes a Sites Planning Area.

## **4.2 Chapter 6: Surface Water Resources**

### **4.2.1 Federal Plans, Policies, and Regulations**

#### **4.2.1.1 Federal Regulations Related to CVP Authorization and Operations**

In the early 1900s, the federal government and the State of California initiated several projects that coordinated water supply, flood control, and navigation benefits. One of the first California projects was proposed in 1920 by Colonel Marshall of the U.S. Geological Survey (USGS) (The Marshall Plan) to construct Shasta and Friant dams and associated facilities to provide water supplies and reduce groundwater overdraft in the San Joaquin Valley. In 1933, the State Legislature adopted the California Central Valley Project (CVP) Act to sell revenue bonds for the facilities. However, because of economic conditions, the bonds could not be sold, and federal government assistance was requested. The Federal Rivers and Harbors Act of 1935 appropriated funds and authorized the U.S. Army Corps of Engineers (USACE) to construct Shasta and Friant dams, power generating and transmission facilities, and the Contra Costa, Madera, and Friant-Kern canals. In 1937, Congress reauthorized the Rivers and Harbors Act, which included a provision to assign construction and operation of the CVP to the Reclamation Service (later known as the Bureau of Reclamation [Reclamation]). This resulted in the CVP being subject to Reclamation Law as defined in the Reclamation Act of 1902 (requiring water users to repay construction costs from which they received benefits) and all supplemental and amendatory acts thereof. Under Reclamation Law, the Secretary of the Interior administers the laws governing the distribution of benefits associated with construction, operation, and maintenance of federal reclamation facilities that provide water for irrigation farmland and other enumerated purposes.

Several other laws were adopted that provided reauthorization or further definition of authorizations for CVP facilities, operations, water service contracting, and environmental protections. One of the most recent laws, the Central Valley Project Improvement Act (CVPIA), substantially amended the CVP authorizations. CVP operations were also substantially modified through adoption of the Coordinated

Operating Agreement, CALFED Bay-Delta Authorization Act, implementation of the Trinity Record of Decision, and the San Joaquin River Agreement (SJRA).

### **Central Valley Project Improvement Act**

The Reclamation Projects Authorization and Adjustment Act of 1992 includes Title 34: the CVPIA. The CVPIA amended the authorization of the CVP to include fish and wildlife protection, restoration, and mitigation as project purposes of the CVP having equal priority with irrigation and domestic uses of CVP water, and elevates fish and wildlife enhancement to a level having equal purpose with power generation. Section 3406(b)(2) of the CVPIA provides the basis for implementing upstream and Sacramento-San Joaquin Delta (Delta) actions for fish management purposes. Section 3406(b)(2) includes curtailing exports at Jones Pumping Plant for fishery management protection based on USFWS recommendations.

Among the changes mandated by the CVPIA are:

- Dedicating 800,000 acre-feet<sup>2</sup> annually to fish, wildlife, and habitat restoration – §3406(b)(2)
- Authorizing water transfers outside the CVP service area – §3405
- Implementing an anadromous fish restoration program – §3406(b)(1)
- Creating a restoration fund financed by water and power users – §3407
- Providing for the Shasta Dam temperature control device – §3406(b)(6)
- Implementing fish passage measures at the Red Bluff Diversion Dam – §3406(b)(10)
- Calling for planning to increase the CVP yield – §3406(j)
- Mandating firm water supplies for Central Valley wildlife refuges and wildlife habitat areas – §3406(d)
- Improving the Tracy Fish Collection Facility (a Reclamation facility that researches ways to improve fish protection around water diversion areas) – §3406(b)(4)
- Meeting federal trust responsibility to protect fishery resources in the Trinity River – §3406(b)(23)

### **Coordinated Operations Agreement**

The CVP and State Water Project (SWP) use a common water supply in the Delta. The associated water rights are conditioned by the State Water Resources Control Board (SWRCB). These rights protect the beneficial uses of water individually and jointly for the SWP and CVP for the protection of beneficial uses<sup>3</sup> in the Sacramento Valley and the Delta Estuary. The Coordinated Operations Agreement (COA), signed in 1986, does the following:

- Defines the CVP and SWP facilities and their water supplies
- Sets forth procedures for coordination of operations

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<sup>2</sup> An acre-foot is the amount of water that would fill a one acre plot of land up to one foot deep; approximately 325,000 gallons.

<sup>3</sup> Beneficial uses define the resources, services, and qualities of aquatic systems that are the goal of the SWRCB to protect and maintain high water quality. The SWRCB is charged with protecting all these uses from pollution to nuisances that may occur as a result of waste discharges in the region. Beneficial uses of surface waters, groundwater, marshes, and wetlands serve as a basis for establishing water quality objectives and discharge prohibitions.

- Identifies formulas for sharing joint responsibilities for meeting Delta standards as the standards existed in SWRCB D-1485 and other legal uses of water
- Identifies how unstored flow will be shared
- Sets up a framework for exchange of water and services between the SWP and CVP
- Provides for periodic review of the agreement.

In-basin uses, or legal uses of water in the Sacramento Basin, as defined by the COA, include water required under SWRCB D-1485 Delta standards for water quality protection for agricultural, municipal and industrial (M&I), and fish and wildlife use. The SWP and CVP are obligated to ensure water is available for these uses, but the degree of obligation depends on several factors and changes throughout the year. Balanced water conditions are defined in the COA as periods when releases from upstream reservoirs, plus unregulated flows, approximately equal the water supply needed to meet Sacramento Valley in-basin uses and exports. Excess water conditions are periods when the described flows exceed Sacramento Valley in-basin uses and exports. During excess water conditions, sufficient water is available to meet all beneficial needs, and the CVP and SWP are not required to supplement the supply with water from reservoir storage. These conditions must also be mutually agreed upon by both Reclamation and the California Department of Water Resources (DWR). Pursuant to Article 6(g) of the COA, Reclamation and DWR have the responsibility (during excess water conditions) to store and export as much water as possible, within physical, legal, and contractual limits. During balanced water conditions, the CVP and SWP share the responsibility in meeting in-basin uses. When water must be withdrawn from reservoir storage to meet in-basin uses, 75 percent of the responsibility is borne by the CVP and 25 percent is borne by the SWP. When unstored water is available for export while balanced water conditions exist, the sum of CVP stored water, SWP stored water, and the unstored water for export is allocated 45 and 55 percent to the SWP and CVP, respectively.

Implementation of the COA principles has evolved since 1986 because of changes in facilities, including the North Bay Aqueduct, as well as new water quality and flow standards established by SWRCB D-1641 and U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) biological opinions. For example, water temperature controls at Shasta, Lewiston, and Whiskeytown dams have changed the pattern of storage and withdrawals for the purpose of improving temperature control and managing coldwater pool resources. Such constraints have reduced the CVP's capability to respond efficiently to changes in Delta export or outflow requirements. Periodically, temperature requirements have caused the timing of the CVP releases to be substantially mismatched with Delta export capability, resulting in loss of water supply. On occasion, and in accordance with Articles 6(h) and 6(i) of the COA, the SWP has been able to export water released by the CVP for temperature control in the Sacramento River. The installation of the Shasta Dam temperature control device has substantially improved Reclamation's ability to match reservoir temperature releases and Delta needs.

Other examples of requirements not included in the COA are the objectives in the 1995 Water Quality Control Plan (WQCP), Vernalis Adaptive Management Program (VAMP), and SWRCB in D-1641. The 1986 COA water supply sharing formula is now used to meet D-1641 Delta outflow and salinity-based standards. SWRCB D-1641 also contains "export limitation" criteria such as the export to inflow ratios, and San Joaquin River pulse period "export limits."

The 1986 COA affirmed the SWP's commitment to provide replacement export capacity for restrictions to CVP operations in May and June under SWRCB D-1485. The SWP provided export capacity (up to

195,000 acre-feet) at Banks Pumping Plant and eliminated the potential water delivery loss that would have been incurred by the CVP pursuant to the 1986 COA.

### **2009 National Marine Fisheries Service Biological Opinion**

The 2009 National Marine Fisheries Service (NMFS) Biological Opinion (BO) concluded that the effects of the proposed operations are likely to jeopardize the continued existence of the following:

- Sacramento River winter-run Chinook salmon
- Central Valley spring-run Chinook salmon
- Central Valley steelhead
- Southern DPS of North American green sturgeon
- Southern Resident killer whale

The BO stated that the CVP and SWP have “both directly altered the hydrodynamics of the Sacramento-San Joaquin river basins and have interacted with other activities affecting the Delta to create an altered environment that adversely influences salmon and green sturgeon population dynamics. The altered environment includes changes in habitat formation, species composition, and water quality, among others”.

NMFS developed Reasonable and Prudent Alternatives (RPAs) in accordance with federal Endangered Species Act (FESA) requirements. NMFS indicated that, based on the analyses presented in the BO, the “RPA cannot and does not include all steps that would be necessary to achieve recovery.” Consequently, NMFS included focused actions designed to compensate for a particular stressor.

The RPAs to the proposed action are summarized below.

- A new year-round temperature monitoring program and reservoir storage management program for Shasta Reservoir to minimize effects to endangered winter-run Chinook salmon that spawn only in the Sacramento River.
- Long-term passage prescriptions at Shasta Dam and re-introduction of winter-run Chinook salmon to its native habitat in the McCloud River and/or upper Sacramento River.
- Maintenance of present flow and water temperature conditions in Clear Creek.
- Modified Red Bluff Diversion Dam (RBDD) gate operations while an alternative diversion structure is being built
- Short-term and long-term actions for improving juvenile rearing habitat in the lower Sacramento River and northern Delta
- Additional Delta Cross Channel gate closures to keep young fish out of artificial channels in the Delta and allow them to migrate safely towards the ocean
- New reverse flow levels in Old and Middle rivers to limit the strength of reverse flows and reduce entrainment at the CVP and SWP facilities
- Use of additional technological measures at the CVP and SWP facilities to enhance screening and increase fish survival

- Additional measures to improve survival of San Joaquin steelhead smolts, including increased San Joaquin River flows and export curtailments, and a new study of acoustic tagged fish in the San Joaquin River Basin to evaluate and refine these measures
- A new American River flow management standard, temperature management plan, additional technological fixes to temperature control structures, and, in the long-term, restoration of steelhead passage at Nimbus and Folsom dams
- A year-round minimum flow regime on the Stanislaus River necessary to minimize project effects to each life stage of steelhead, including new springtime flows that will support rearing habitat formation and inundation, and create pulses that allow salmon to migrate out successfully
- Development of Hatchery Genetic Management Plans to increase the diversity, and therefore, resiliency of salmon to withstand a wide range of conditions

The RPA actions that directly affect water supply operations are summarized below.

- **Clear Creek:** Modify releases from Whiskeytown Dam into Clear Creek to meet daily water temperature requirements and to provide periodic pulse flows for channel maintenance.
- **Upper Sacramento River and releases from Shasta Lake:** Manage reservoir storage volumes in Shasta Lake at the end of September to improve the potential for adequate water for coldwater pool maintenance in order to meet daily water temperature requirements in the fall and to provide adequate carryover storage to meet water temperature requirements in the following year. The RPA also included minimum instream flow targets and recommendations for modifications of water temperature requirements in drier water years that could be used for guidance to maintain adequate coldwater pool volumes.
- **Upper Sacramento River and Red Bluff Diversion Dam:** The RPA supported the current construction of the new diversion structure to eliminate use of the gates that block Sacramento River flows. The RPA also includes requirements for diversions until the new structure is completed.
- **Upper Sacramento River Flows at Wilkins Slough:** Instream flows historically were maintained at Wilkins Slough to provide adequate flows for navigation and more recently to provide adequate elevations for installed pumps. The RPA recommends modifications to this flow criterion.
- **American River:** The RPA supports the flows currently being discussed by Reclamation and other agencies for lower American River flow and water temperature management.
- **Stanislaus River:** The RPA requires modifications in operations of New Melones Reservoir to provide daily water temperature management and minimum instream flows in Stanislaus River.
- **Delta-Cross Channel (DCC) Gate Operations:** The RPA modifies the operations of the DCC Gate that diverts water from the Sacramento River toward the Clifton Court Forebay and the Jones Pumping Plant. The RPA modifies operations of the gate based on salinity in the southern Delta and presence of salmonids<sup>4</sup> in the Sacramento River near Knights Landing and the City of Sacramento. This could result in a reduction of exports.

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<sup>4</sup>Salmonids- the family of fish that includes salmon



- **San Joaquin River:** Modification of the export to inflow ratio to reduce exports if the San Joaquin River flows at Vernalis are not adequate to meet the ratio criteria to protect water quality and reduce entrainment of juveniles.
- **Old and Middle River:** The RPA requires reductions in exports to reduce reverse flows when salmonids are present to protect water quality and reduce fish entrainment.

### **Bay-Delta Water Quality Control Plan**

The Bay Delta Water Quality Control Plan outlines water quality objectives for the Delta.

### **CALFED Bay-Delta Authorization Act**

The CALFED Bay-Delta Authorization Act authorized \$395 million for a balanced program to increase California's water supply, reliability and quality and help restore sensitive water ecosystems.

The CALFED law was designed to ensure that California will be able to meet its water needs in a balanced manner – for farmers, for cities, and for the environment. Specifically, the law:

- Restores environmentally significant areas of the State, including the San Francisco Bay-Delta: Comprising more than 600 program elements including water purchases to improve river habitat, removal of dams that are no longer necessary and hinder fish migration, restoration of streams, and restoration of significant land habitat.
- Provides necessary water infrastructure to enable California to continue to lead the nation in economic growth and agriculture production: Including screens to protect fish, levee improvements to protect water quality and ensure beneficial land use, through-Delta conveyance importance, and additional ground and off-stream surface water storage.
- Ensures a safe, reliable source of drinking water for California's growing population, including smarter use of water supplies and facilities to reduce environmental impact of water exports

This approach balances the needs of agricultural, urban and environmental interests and helps to address the needs of the State's aging water infrastructure.

### **CALFED Bay-Delta Implementation Act**

In the August 28, 2000 CALFED Record of Decision (ROD), Reclamation and other State and federal agencies committed to implementing a long-term plan to restore the Bay-Delta. This plan consists of many activities including storage, conveyance, ecosystem restoration, levee integrity, watersheds, water supply reliability, water use efficiency, water quality, water transfers, and science. The Implementation MOU, also signed August 28, 2000, continued the operations decision-making process that had evolved through the CALFED process. The ROD identified numerous programs to provide protection to fish in the Bay-Delta Estuary through environmentally beneficial changes in CVP and SWP pumping operations at no uncompensated water cost to CVP and SWP water users.

### **Trinity River Mainstem Fishery Restoration**

In 1994, USFWS, as the NEPA lead agency, and Trinity County, as the CEQA lead agency, began the public process for developing the Trinity River Mainstem Fishery Restoration EIS/EIR. In December 2000, the Secretary of Interior signed the ROD for a variable annual flow regime, mechanical channel rehabilitation, sediment management, watershed restoration, and adaptive management. Based on the

ROD, 368,600 acre-feet to 815,000 acre-feet (depending on water year<sup>5</sup> type) is allocated annually for Trinity River flows. The amount of water released is scheduled in coordination with USFWS to best meet habitat, temperature, and sediment transport objectives in the Trinity River basin.

### **San Joaquin River Agreement and the Vernalis Adaptive Management Plan**

The 1998 San Joaquin River Agreement (SJRA) was adopted through the SWRCB D-1641 agreement. It includes a 12-year experimental program providing for flows and Delta exports in the lower San Joaquin River. This study is conducted during a 31-day pulse flow period occurring April to May. The SJRA also provides for the collection of experimental data during that time to further the understanding of the effects of flows, exports, and a barrier at the head of Old River on salmon smolt survival. This experimental program is commonly referred to as the VAMP. The SJRA also provides water for flows at other times on the Stanislaus, Merced, and lower San Joaquin rivers. SJRA established a management and technical committee to oversee, plan, and coordinate implementation of activities required under the agreement. Reclamation, DWR, USFWS, California Department of Fish and Game (CDFG), and NMFS are signatories to the agreement; other signatories include San Joaquin River water rights holders, SWP and CVP water users, and other stakeholders.

The SJRA (1987) also provides for the collection of experimental data on the effects of flows, exports, and a barrier at the head of Old River. A barrier would deter salmon smolts (juvenile salmon) from entering Old River and direct them to the San Joaquin River where it has been shown that they have an increased survival rate. This experimental portion of the SJRA program is commonly referred to as the Vernalis Adaptive Management Program (VAMP). SWRCB indicates that VAMP experimental data will be used to create permanent objectives for the pulse flow period. The parties to the SJRA include several agencies that contribute flow to the San Joaquin River, divert from or store water on the tributaries to the San Joaquin River, or have an element of control over the flows in the lower San Joaquin River. These include Reclamation, Oakdale Irrigation District, South San Joaquin Irrigation District, Modesto Irrigation District, Turlock Irrigation District, Merced Irrigation District, and the San Joaquin River Exchange Contractors. VAMP is based on coordination among these participating agencies in carrying out their operations to meet an annual target flow objective at Vernalis.

The VAMP program has two distinct components: flow objectives and export restrictions. Flow increases could be provided using CVPIA §3406(b)(1), (b)(2), and (b)(3), which would contribute to fishery needs on the Stanislaus River. The export reduction involves a combined State and federal pumping limitation on the Delta pumps. Pumping reductions that cannot be recovered by adjustments in CVP operations are considered to be §3406(b)(2) water (e.g., it is reserved for fish and wildlife). Reductions of SWP pumping are limited to the amount that can be recovered through operations adjustments and the export of up to 48,000 acre-feet of transferred water to be made available from the Lower Yuba River Accord<sup>6</sup>.

<sup>5</sup> The 12-month period starting October 1st and ending September 30th of the following year in which the surface-water supply is quantified. The water year is defined by the year in which it ends (i.e., October 1, 1998 through September 30, 1999 is the 1999 water year).

<sup>6</sup> The Lower Yuba River Accord provides higher minimum instream flows on the lower Yuba River, funds fisheries studies and restoration activities, enhances water supply reliability in Yuba County, and establishes long-term acquisition of water for the EWA. The "Interim Instream Flows and Fishery Studies in the Stanislaus River Below New Melones Reservoir" (1987 Agreement) specifies interim releases from the New Melones Dam to maintain instream flows as well.



#### **4.2.1.2 Federal Water Quality Regulations Related to Water Supplies**

Federal water quality regulations affect SWP and CVP water supplies indirectly through limitations on diversions to protect water quality needs of other beneficial uses.

#### **Clean Water Act**

The Federal Water Pollution Control Act was initially adopted in 1948. Modifications to a portion of the act in 1972, 1977, and 2002 became known as the Clean Water Act (CWA, 33 U.S.C. 1251 to 1376). The CWA establishes the basis for regulating discharges of pollutants into surface waters of the United States and regulating water quality standards for stated beneficial uses. Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the CWA, water quality standards consist of two elements: (1) designated beneficial uses of the water body in question; and (2) criteria that protect the designated uses. Section 304(a) requires the U.S. Environmental Protection Agency (USEPA) to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use.

The CWA is implemented by the USEPA. The USEPA is generally directly responsible for implementing CWA provisions, although the CWA also authorizes states to implement portions of CWA through a delegation process. California has this authority to identify beneficial uses and water quality criteria to protect those beneficial uses. SWRCB water rights decisions and orders have been issued to protect beneficial uses during operation of SWP and CVP facilities.

Several provisions of the CWA are implemented through other agencies, including Section 404 of the CWA that authorizes USACE to regulate discharge of dredging material and fill into “waters of the United States (including wetlands),” and The Safe Drinking Water Act (SDWA) of 1974, and amendments in 1986 and 1996, which directed the USEPA to establish national drinking water standards with maximum contaminant levels for a wide variety of constituents and provisions for a mandatory monitoring program for local water suppliers. The 1996 amendments expanded the focus of the SDWA from primarily treatment to source water protection to reduce contamination in municipal water supplies. Many of the SWP and CVP water users are municipalities that must comply with the SDWA and are concerned about water supply facility operations that may increase the potential for contamination.

#### **4.2.2 State Plans, Policies, and Regulations**

##### **4.2.2.1 State Water Resource Control Board Water Rights and Water Quality Protection**

California law recognizes several types of surface water rights, including riparian and appropriative rights<sup>7</sup>. A riparian right exists through ownership of land adjacent to a stream or other body of water. The right allows a water user to divert from the natural flow of a stream for use on land within the watershed of the source. Seasonal storage of water is not allowed under a riparian right. If there is insufficient water for the reasonable uses of all the riparian users, flows are shared relative to needs. Generally, riparian water users<sup>8</sup> have first priority to the use of the natural flow in a river. Remaining water is available to

<sup>7</sup> Appropriative rights pertain to the diversion of water for immediate use on non-riparian property (property not including or adjacent to a stream) or for storing the water for later use and requires a permit from the SWRCB

<sup>8</sup> Users who extract water for use on lands that directly border a stream; this use does not require a permit from the SWRCB.

appropriative water rights holders<sup>9</sup>. No permit or license is necessary to divert water under claim of riparian right; however, a record of water use should be filed with SWRCB.

Appropriative water rights are granted by the SWRCB based on the time of water right application. Appropriative water rights granted before 1914 (“pre-1914 appropriative water rights”) do not require a permit or license; however, the pre-1914 water use is generally recorded with SWRCB. Post-1914 water rights require a permit or license from SWRCB or its predecessor agencies. All new appropriators must file an application with SWRCB and obtain a permit before diverting water. SWRCB determines whether the water will be put to beneficial use, the quantity and pattern of diversion, location of diversion, necessary conditions to protect the environment, the public trust, and prior water rights. If the water is diverted and applied to beneficial use in accordance with the terms of the permit for a period of years, a license may be issued by SWRCB confirming the extent of the permittee’s right. The SWRCB has the authority to prevent waste and unreasonable use, prevent unreasonable method of use, unreasonable diversion of water, and to protect public trust uses of water. The SWRCB granted post-1914 appropriate water rights to Reclamation and DWR for the CVP and SWP, respectively.

### **Water Rights Protections for County of Origin and Upstream Watersheds**

Initiation of the CVP in the 1920s by the State of California raised concerns for availability of water remaining in northern California following construction of storage and export facilities. These issues were discussed again in the 1950s as the SWP was being developed. In 1927, the State legislature adopted the Feigenbaum Act. This allows the State to file for unappropriated water<sup>10</sup> for general water resource development plans to avoid further filings by private parties for unappropriated water. The Feigenbaum Act was amended in 1931 to protect the availability of water for beneficial uses in the counties of origin.

### **Water Rights Decision 1422/Order 83-3 and Water Rights Decision 1275**

Individual water rights for the CVP are granted by the SWRCB for the Sacramento, Trinity, American, San Joaquin, and Stanislaus rivers, and several of their tributaries. Water Rights D-1422 and SWRCB Water Rights Order 83-3 provide the water rights and primary operational criteria for New Melones Reservoir. D-1422 includes requirements for water quality conditions on the San Joaquin River at Vernalis.

Water rights for the SWP were granted in 1967 through Water Rights D-1275. This decision also included water quality criteria in the Delta to be implemented with the CVP and SWP.

#### ***4.2.2.2 Water Quality Control Plans for the Sacramento/San Joaquin River Basins, the San Francisco Bay Basin, and Development of the 1978 Delta Plan and Water Rights Decision 1485***

In 1975 and 1976, the SWRCB adopted the Sacramento–San Joaquin Delta Basin and San Francisco Bay Basin plans, which included water quality standards. These plans formed the basis for the WQCP for the Delta and Suisun Marsh, which was adopted in 1978. This plan included salinity objectives in the Delta for protection of agricultural uses. In 1978, the SWRCB also adopted Water Rights Decision 1485 (D-1485) to implement portions of the plan through modifications to CVP and SWP operations. The 1978 Delta Plan considered the need to develop methods to improve circulation and change diversion to

<sup>9</sup> Users who extract water for delivery to a parcel of land that is not adjacent to the stream or other water source. This use requires a permit from the SWRCB.

<sup>10</sup> Unappropriated water is any usable water that is not claimed under prior rights.

protect water quality in the southern Delta. Reclamation and DWR protested many of the requirements of D-1485, including the ability of new water rights applicants to change Delta inflows that would need to be corrected through modification of CVP and SWP operations to continue to meet Delta water quality requirements. Alternatives to D-1485 and the 1978 Delta Plan were developed and discussed through the mid-1990s.

In the 1978 Delta Plan and D-1485, requirements were based on the Sacramento Valley 40-30-30 Index and San Joaquin Valley 60-20-20 Index. The Sacramento Valley 40-30-30 Index is computed through a weighted average of:

- The current water year's April through July unimpaired flow<sup>11</sup> forecast in the Sacramento Valley (weighted as 40 percent)
- The current water year's October through March unimpaired flow forecast in the Sacramento Valley (weighted as 30 percent)
- The previous water year's index (a cap of 10.0 million acre-feet is put on the previous year's index to account for required flood control reservoir releases during wet years weighted as 30 percent).

The Sacramento Valley unimpaired flow is a combination of flows for Sacramento River at Bend Bridge near Red Bluff, Feather River inflow to Lake Oroville, Yuba River flows at Smartville, and American River inflow to Folsom Lake. The criteria for water year classifications under the Sacramento Valley 40-30-30 Index are as follows:

- **Wet Year:** Weighted sum greater than or equal to 9,200,000 acre-feet
- **Above Normal Year:** Weighted sum less than 9,200,000 acre-feet and greater than 7,800,000 acre-feet
- **Below Normal Year:** Weighted sum less than 7,800,000 acre-feet and greater than 6,500,000 acre-feet
- **Dry Year:** Weighted sum less than 6,500,000 acre-feet and greater than 5,400,000 acre-feet
- **Critical Year:** Weighted sum equal to or less than 5,400,000 acre-feet

The San Joaquin Valley 60-20-20 Index is computed through a weighted average using:

- The current water year's April through July unimpaired flow forecast (weighted as 60 percent)
- The current water year's October through March unimpaired flow forecast (weighted as 20 percent)
- The previous water year's index with a maximum amount to reflect flood releases in wetter water years (weighted as 20 percent).

The Sacramento Valley unimpaired flow is a combination of flows for Stanislaus River inflow to New Melones Reservoir, Tuolumne River inflow to Don Pedro Reservoir, Merced River inflow to Exchequer Reservoir (Lake McClure), and San Joaquin River inflow to Millerton Lake.

The criteria for water year classifications under the San Joaquin Valley 60-20-20 Index are as follows:

- **Wet Year:** Weighted sum greater than or equal to 3,800,000 acre-feet
- **Above Normal Year:** Weighted sum less than 3,800,000 acre-feet and greater than 3,100,000 acre-feet
- **Below Normal Year:** Weighted sum less than 3,100,000 acre-feet and greater than 2,500,000 acre-feet

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<sup>11</sup> Unimpaired flow is runoff that would have occurred had water flow remained unaltered in rivers and streams instead of stored in reservoirs, imported, exported, or diverted. The unimpaired flow forecast is the estimate of unimpaired flow that will be available for that water year.

- **Dry Year:** Weighted sum less than 2,500,000 acre-feet and greater than 2,100,000 acre-feet
- **Critical Year:** Weighted sum equal to or less than 2,100,000 acre-feet

### **Development of the 1995 and 2006 Water Quality Control Plans, and Orders 98-09 and 95-9**

In 1994, representatives of the federal and State governments, urban and agricultural water users, and environmental interest groups agreed to implementation of the interim Bay-Delta protection plan. The 1995 Bay-Delta WQCP was adopted in 1995 and included provisions for operations of the CVP and SWP to be consistent with requirements of the USFWS 1995 Delta Smelt BO and NMFS 1995 Winter-Run Chinook Salmon BO. Water Rights Order 95-6 was subsequently adopted by SWRCB to eliminate inconsistencies between water rights permit conditions and the WQCP water quality objectives, and was extended through 1999 under Water Rights Order 98-09. Water Rights Order 95-9 also required CVP to release water from New Melones Reservoir to comply with salinity standards in the San Joaquin River at Vernalis. The WQCP and the CVPIA were several of the first plans that required the CVP and SWP to be operated in a manner to protect fish and wildlife as well as agricultural and urban water users. Many of the water quality provisions of these requirements were similar to those in D-1485. However, 1995 WQCP also included additional requirements for managing Delta salinity through X2<sup>12</sup> requirements, upper limits on exports, and operations of the DCC gates to protect fish. The WQCP also included water temperature standards for estuaries that were primarily developed to manage discharge of cooling water from thermal power plants.

The SWRCB undertook a proceeding to amend the 1995 WQCP. The SWRCB adopted a revised Bay-Delta Plan on December 13, 2006. There were no changes to the beneficial uses from the 1995 Plan to the 2006 Plan, nor were any new water quality objectives adopted in the 2006 Plan. A number of changes were made simply for consistency. The SWRCB initiated a Comprehensive Review of the Bay-Delta Plan entitled Water Rights and Other Requirements to Protect Fish and Wildlife Beneficial Uses and the Public Trust, in 2008.

#### **4.2.2.3 State Water Resources Control Board Decision 1641 (D-1641)**

With D-1641, adopted on December 29, 1999, the SWRCB implements the objectives of the 1995 Bay Delta WQCP and imposes flow and water quality objectives on the CVP and SWP. D-1641 specifies that, from February through June, the location of X2 must be west of Collinsville and must additionally be west of Chipps Island or Port Chicago for a certain number of days each month, depending on the previous month's Eight River Index<sup>13</sup>. D-1641 specifies that compliance with the X2 standard may occur in one of three ways: (1) the daily average EC at the compliance point is less than or equal to 2.64 milliohms/cm; (2) the 14-day average EC is less than or equal to 2.64 milliohms/cm; or (3) the three-day average Delta outflow is greater than or equal to the corresponding minimum outflow.

In D-1641, the SWRCB assigned responsibilities to Reclamation and DWR for meeting these requirements on an interim basis. These responsibilities required that the CVP and SWP be operated to meet water quality objectives in the Delta, pending a water rights hearing to allocate the obligation to

<sup>12</sup> X2 is the location of the two parts per thousand salinity contour (isohaline), one meter off the bottom of the estuary, as measured in kilometers upstream from the Golden Gate Bridge.

<sup>13</sup> The Eight River Index refers to the sum of the unimpaired runoff for the following locations: Sacramento River flow at Bend Bridge, near Red Bluff; Feather River, total inflow to Oroville Reservoir; Yuba River flow at Smartville; American River, total inflow to Folsom Reservoir; Stanislaus River, total inflow to New Melones Reservoir; Tuolumne River, total inflow to Don Pedro Reservoir; Merced River, total inflow to Exchequer Reservoir; and San Joaquin River, total inflow to Millerton Lake.

meet the water quality and flow-dependent objectives among all users of the Sacramento and San Joaquin river basins with appropriative water rights with post-1914 priority dates. However, in lieu of this hearing, the SJRA and Sacramento Valley Water Management Agreement are settlements between Reclamation and DWR with water users upstream of the Delta, in which the CVP and SWP committed to continue to meet the D-1641 water quality requirements in return for other commitments by major upstream water-rights holders. After these agreements were executed, SWRCB cancelled the water rights hearing to allocate that responsibility.

The SWRCB revised D-1641 on March 15, 2000. The requirements in the revised D-1641 address the standards for fish and wildlife protection, urban water quality, agricultural water quality, and Suisun Marsh salinity. D-1641 also authorizes the CVP and SWP to jointly use each other's points of diversion in the southern Delta (also known as Joint Point of Diversion), with conditional limitations and required coordination plans, and modifies the Vernalis salinity standard in the WQCP.

The Joint Point of Diversion was authorized to meet a prioritized list of conditions. The highest priority was to convey CVP water in SWP facilities to several water service contractors located in the San Joaquin Valley, and to recover export reductions that were required to protect fish. The next priorities were for authorized purposes of current CVP and SWP water rights permits up to the physical capacity of the diversion facilities. The Joint Point of Diversion diversions are allowed only under excess conditions, as previously discussed, and after water rights and BO requirements for the Contra Costa Water District (CCWD) Los Vaqueros Project are met. The second priority also requires operations in accordance with a Fisheries Response Plan.

#### **4.2.2.4 State Water Resources Control Board Regulations**

Water quality regulations related to waste discharge and National Pollutant Discharge Elimination System (NPDES) permits are discussed in the Surface Water Quality section of this chapter. The following discussion is related to water quality regulations that affect water supplies of the CVP and SWP.

#### **Porter-Cologne Water Quality Control Act**

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) established surface and groundwater quality regulations that set limits on water quality constituents for the purpose of protecting beneficial uses<sup>14</sup> and provided the authority for the SWRCB to protect the State's surface and groundwater. The nine Regional Water Quality Control Boards (RWQCBs) were established to oversee and implement specific water quality activities in their geographic jurisdictions.

The Porter-Cologne Act requires the RWQCBs to establish water quality objectives while acknowledging that water quality may change without unreasonably affecting beneficial uses. Therefore, water quality objectives are references as opposed to rules for meeting federal and State requirements for water quality control.

The Porter-Cologne Act also requires that each RWQCB develop basin plans that establish and periodically review the beneficial uses and water quality objectives for surface and groundwater bodies within its jurisdiction. Water quality objectives provide specific water quality guidelines to protect groundwater and surface water to maintain designated beneficial uses. The SWRCB, through its

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<sup>14</sup> "Beneficial uses" of the waters of the State that may be protected against quality degradation include, but are not limited to, domestic, municipal, agricultural, and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.



RWQCBs, is the permitting authority in California to administer NPDES and waste discharge requirements for regulation of waste discharges in their respective jurisdictions.

The USEPA may allow a state to implement portions of the CWA. In 1972, the State Legislature amended the Porter-Cologne Act to give SWRCB the authority to implement those portions of the CWA. Portions of WQCPs that are consistent with and under the jurisdiction of the CWA also require approval by USEPA.

### **The Burns-Porter Act**

The Burns-Porter Act of 1959, also known as the Water Resources Development Bond Act, authorized the sale of general obligation bonds to finance and develop the initial facilities of the State Water Resources Development System, which are now known as the SWP. The Burns-Porter Act also authorized the State of California to enter into contracts for the sale, delivery, or use of water made available by the State Water Resources Development System.

### **Delta Protection Act of 1959**

The Delta Protection Act (California Water Code §12220) was adopted in 1959. This legislation incorporated by reference the county of origin and water protection acts. It found that maintenance of an adequate water supply in the Delta is necessary for the health, safety, and welfare of the people of the State. An adequate water supply is sufficient to maintain and expand agriculture, industry, urban, and recreational development and provides a common source of freshwater for export to areas of water deficiency (frequently referred to as the “Common Pool”) in the Delta. The legislation also declared that the CVP and SWP would provide salinity control and adequate water supply for users of water in the Delta. The legislation also defined the “Legal Delta” boundaries to include portions of Sacramento, San Joaquin, Yolo, Solano, and Contra Costa counties.

### **Delta Protection Act of 1992**

The Delta Protection Act of 1992 (also known as the Johnston-Baker-Andal-Boatwright Delta Protection Act) established the Delta Protection Commission and defined the Commission’s principal jurisdiction. The Act declared that the Delta is a natural resource of statewide, national, and international significance, containing irreplaceable resources, and that it is the policy of the State to recognize, preserve, and protect those resources of the Delta for the use and enjoyment of current and future generations, in a manner that protects and enhances the unique values of the Delta as an evolving place (PRC §29701 to 2).

### **Monterey Agreement**

In addition to the requirements established by SWRCB and other federal and State agencies, SWP operations are subject to requirements of their contracts. The SWP delivers the portion of available water supplies to each contractor as calculated each year. If excess water is available, Article 21 of the SWP contracts allows for delivery of the excess water (also known as “Article 21 Water”). However, as water supply availability frequently was reduced because of water quality, water rights, and environmental concerns, water deliveries have been reduced to many SWP water users. SWP contractors had raised issues with the allocation of surplus and carryover storage flows. In response to these issues, in 1994, DWR and SWP contractor representatives agreed to a set of 14 principles to modify the long-term SWP water supply contracts in a document that became known as the Monterey Agreement, which included principles to increase water supply reliability, improve financial management, and increase water management flexibility. A program EIR was completed and certified in 1995. Subsequent litigation

related to the EIR required DWR to prepare a new EIR. The SWP operates under many of the provisions of the Monterey Agreement, including methods to allocate available water supplies, provisions for water transfers, and transfer of ownership for the Kern Fan Element (groundwater bank) to Kern County Water Agency to provide for more flexibility.

### **Monterey Plus**

The Monterey Plus EIR is officially known as an EIR on the Monterey Amendment to the State Water Projects (Including Kern Water Bank Transfer) and Associated Actions as Part of a Settlement Agreement (Monterey Plus).

The objective of the Monterey Plus EIR is to resolve the underlying issues that led to the Monterey Amendment and implement the Settlement Agreement. Specific objectives of the Monterey Plus are to:

- Resolve conflicts and disputes among SWP contractors regarding water allocations and financial responsibilities for SWP operations;
- Restructure and clarify procedures for SWP water allocation and delivery during times of shortage and surplus;
- Reduce financial pressures on agricultural contractors in times of drought and supply reductions;
- Adjust the financial rate structure of the SWP to more closely match revenue needs;
- Facilitate water management practices and water transfers that improve reliability and flexibility of SWP water supplies in conjunction with local supplies;
- Resolve legal and institutional issues related to storage of SWP water in Kern County groundwater basins, and in other areas.

The Monterey Agreement provided in Principle 13 that the proposal was an integrated package. Contractors had to choose to participate in all the provisions of the Monterey Agreement or none. In other words, the Monterey Amendment resulted from a package deal of negotiated concessions that required achieving all of the above objectives in order to settle significant disputes among the contractors. Specific objectives of the Settlement Agreement are to:

- Communicate SWP supply reliability information to SWP contractors and local planning jurisdictions and clarify related SWP contract language;
- Enhance public review of SWP contract amendments and public participation in environmental review;
- Provide assurances regarding finality of certain Table A transfer and transfer of title to the Kern Fan Element land and assurances regarding environmental protection of Kern Fan Element lands;
- Increase SWP watershed enhancement activities in Plumas County and improve Plumas County's access to SWP water; and
- Provide funding to plaintiffs to implement the Settlement Agreement including watershed restoration projects.

Although the Settlement Agreement does not have the same language that the Monterey Agreement had with regard to an integrated package, the Settlement Agreement also was a package deal of negotiated

concessions that required achieving all of the above objectives in order to settle significant disputes between the parties.

### **Suisun Marsh Protection Act and Plan (1974)**

In 1974, the California Legislature passed the Nejedly-Bagley-Z'berg Suisun Marsh Protection Act (SMPA) of 1974, designed to preserve Suisun Marsh from residential, commercial, and industrial development. The act directed the San Francisco Bay Conservation and Development Commission (BCDC) and CDFG to prepare a protection plan for Suisun Marsh “to preserve the integrity and assure continued wildlife use” of the marsh. The objectives of the protection plan are to preserve and enhance the quality and diversity of the Suisun Marsh’s aquatic and wildlife habitats, and to ensure retention of upland areas adjacent to the marsh in uses compatible with its protection.

### **Suisun Marsh Preservation Agreement (1987)**

Since the early 1970s, the California Legislature, SWRCB, Reclamation, CDFG, Suisun Resource Conservation District (SRCD), DWR, and other agencies have worked to preserve beneficial uses of Suisun Marsh as mitigation for potential impacts of reduced Delta outflow on Delta salinity. On March 2, 1987, the SMPA (1987) was signed by DWR, Reclamation, CDFG, and SRCD, CVP, and SWP.

The purpose of the SMPA (1987) was to establish mitigation for impacts on salinity from the SWP, CVP, and other upstream diversions. The SMPA (1987) has the following objectives:

- To ensure that Reclamation and DWR maintain a water supply of adequate quantity and quality for managed wetlands within Suisun Marsh to mitigate adverse effects on these wetlands from CVP and SWP operations, as well as a portion of the adverse effects of other upstream diversions.
- To improve Suisun Marsh wildlife habitat on these managed wetlands.
- To define the obligations of Reclamation and DWR necessary to ensure the water supply, distribution, management facilities, and actions necessary to accomplish these objectives.
- To recognize that water users in Suisun Marsh (i.e., existing landowners) divert water for wildlife habitat management within the Suisun Marsh.
- Set a timeline for implementing the Suisun Marsh Protection Plan<sup>15</sup>
- Delineate monitoring and mitigation requirements
- Include provisions to recognize water uses in Suisun Marsh and improve wildlife habitat within the marsh

On June 20, 2005, a revised SMPA (1987) was signed to make channel water salinity requirements consistent with the SWRCB’s Decision 1641 and replace additional large-scale water management facilities with landowner water and management activities to meet the SMPA (1987) objectives in the western portion of Suisun Marsh.

The two primary mechanisms for meeting salinity standards include the implementation and operation of facilities in the marsh and management of Delta outflow. The facilities include the Suisun Marsh Salinity

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<sup>15</sup> The Suisun Marsh Protection Plan was prepared by the San Francisco Bay Conservation and Development Commission and CDFG in 1976. The Plan’s objectives are to preserve and enhance the quality and diversity of the Suisun Marsh aquatic and wildlife habitats and to assure retention of upland areas adjacent to the Marsh in uses compatible with its protection.

Control Gates (SMSCGs) on Montezuma Slough (initiated in 1988) to restrict high salinity flows from Grizzly Bay into Montezuma Slough during incoming tides and to retain low salinity water, and the RRDS and Morrow Island Distribution System (constructed in 1979 and 1980) to provide low salinity water to a portion of the Suisun Marsh wetlands.

### **California Water Plan**

Chapter 1 of Volume 2, Resource Management Strategies to the California Water Plan (CWP) – Update 2009, includes surface storage as a resource management strategy toward the management objective of helping to meet water-related resource management needs through an increase in water supply. Chapter 12 of Volume 2 includes the NODOS Project as a surface storage alternative identified in the CALFED ROD and recommends continued work efforts to complete environmental studies for the NODOS Project.

## **4.3 Chapter 7: Surface Water Quality**

### **4.3.1 Federal Plans, Policies, and Regulations**

#### **4.3.1.1 Clean Water Act Section 303(d) Total Maximum Daily Load**

Section 303(d) of the CWA establishes requirements for states to identify and prioritize water bodies that do not meet water quality standards and are not supporting their designated beneficial uses. As defined by the CWA, water quality standards consist of two elements: (1) designated beneficial uses of the water body in question; and (2) criteria that protect the designated uses. For these water quality-limited water bodies, states must calculate the total maximum daily load<sup>16</sup> (TMDL) for the contaminants of concern, set an allowable load to achieve water quality standards, and adopt a plan of implementation within the applicable water quality management plan. Placement on this list triggers development of a TMDL Program for each water body and associated pollutant/stressor on the list.

These waters are placed on the §303(d) List of Impaired Waters. This list defines low, medium, and high priority pollutants that require immediate attention by federal and State agencies. The RWQCBs are responsible for implementing the TMDL program in California. Completed or ongoing TMDLs in the Bay-Delta region include chlorpyrifos and diazinon, dissolved oxygen, mercury/methylmercury, pathogens, pesticides, organochlorine pesticides, salt and boron, and selenium.

#### **4.3.1.2 Clean Water Act Section 402 NPDES Permit Compliance**

The NPDES permit system pursuant to §402 of the CWA applies to discharges of wastes to surface waters of the U.S. Under California's Porter-Cologne Act, the SWRCB and associated RWQCBs regulate discharges of wastes to all waters of the State and land to protect both surface and groundwater.

In November 1990, the California Environmental Protection Agency (CalEPA) established regulations that provided stormwater permit requirements for specific categories of industries, including construction (Phase I Rule). Under Phase I, a stormwater permit was required for construction projects that disturbed five acres of land, and for large Municipal Separate Storm Sewer Systems (MS4s). In December 1999, the USEPA issued regulations (Phase II Rule) that expanded the NPDES program to require a stormwater discharge permit for construction activities with a disturbance area of one to five acres and for small MS4s. In California, the CalEPA has delegated responsibility for CWA implementation to the SWRCB.

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<sup>16</sup> TMDL is the maximum amount of a specified pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that load among the various sources of that pollutant.

#### **4.3.1.3 Clean Water Act Section 404**

Pursuant to CWA Section 404, a program was established to regulate the discharge of dredged and fill material into waters of the U.S., including some wetlands. Activities in waters of the U.S. that are regulated pursuant to this program include fills for development, water resource projects (e.g., dams and levees), infrastructure development (e.g., highways and airports), and conversion of wetlands to uplands for farming and forestry. Waters of the U.S. include navigable waters<sup>17</sup> of the U.S.; interstate waters; waters where their use, degradation, or destruction could affect interstate or foreign commerce; tributaries to any of these waters; and wetlands that meet any of these criteria or are adjacent to any of these waters or their tributaries. Wetlands are defined pursuant to §404 as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions. Jurisdictional wetlands must meet three wetland delineation criteria: (1) hydrophytic vegetation (i.e., plants that grow in saturated soil), (2) hydric soil types (i.e., soils that are wet or moist enough to develop anaerobic conditions<sup>18</sup>), and (3) wetland hydrology.

Pursuant to §404(b)(1) of the CWA, the Least Environmentally Damaging Practicable Alternative (LEDPA) must be identified from among those alternatives considered in detail in an EIS/EIR. If a federal agency is a partner in the implementation of a project, then the Proposed Action/Project must be recognized as the LEDPA. A Section 404(b)(1) evaluation must be included with a project's Final EIS/EIR pursuant to the CWA, to provide required information on the potential effects of project activities regarding water quality and to provide rationale in support of identifying the LEDPA.

#### **4.3.1.4 Rivers and Harbors Act Section 10**

Section 10 of the Rivers and Harbors Act requires authorization from USACE for the construction of any structure in or over navigable waters of the U.S., the excavation/dredging or deposition of material in these waters, or any obstruction or alteration in navigable water.

#### **4.3.1.5 Federal Antidegradation Policy**

The Federal Antidegradation Policy is designed to provide the level of water quality necessary to protect existing uses and provide protection for higher quality and national water resources. The federal policy directs states to adopt a statewide policy that includes the following primary provisions:

1. Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.
2. Where the quality of waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located.

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<sup>17</sup> Waters subject to the ebb and flow of the tide shoreward to the mean high water mark that may be used to transport interstate or foreign commerce.

<sup>18</sup> Conditions where there is no oxygen present in the soil.



3. Where high quality waters constitute an outstanding national resource, such as waters of national and State parks and wildlife refuges, and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.

#### **4.3.1.6 Federal Safe Drinking Water Act**

The Federal SDWA was established to protect the public health and quality of drinking water in the United States, whether from aboveground or underground sources. The SDWA directed the USEPA to set national standards for drinking water quality. It required the USEPA to set Maximum Contaminant Levels (MCLs)<sup>19</sup> for a wide variety of potential drinking water pollutants. The owners or operators of public water systems are required to comply with primary (health-related) MCLs and are encouraged to comply with secondary (nuisance- or aesthetics-related) MCLs.

Federal SDWA standards apply to treated water as it is served to consumers. All surface waters require some form of treatment in order to meet drinking water standards. The degree of treatment needed depends on the quality of the raw water<sup>20</sup>. The highest quality raw surface waters need only to be disinfected before being served to consumers. More typically, raw water is treated in a conventional water treatment plant that includes sedimentation, filtration, and disinfection processes. Municipal water suppliers prefer raw water sources of high quality because their use minimizes risk to public health and minimizes the cost and complexity of treatment to meet SDWA standards.

Some constituents of Delta water are of particular concern to municipal contractors because they are either not removed, or only partially removed, by community-used water treatment processes. Constituents of concern include total dissolved solids (TDS)<sup>21</sup>, chlorides, bromides, and organic compounds. These substances can be removed from raw water by advance water treatment processes, but to do so substantially increases the cost borne by municipalities.

The Department of Public Health (DPH) is designated by the USEPA as the primary agency to administer and enforce requirements of the Federal SDWA in California. Public water systems are required to monitor for regulated contaminants in their drinking water supply. California's drinking water standards (e.g., MCLs) are the same or more stringent than the federal standards and include additional contaminants not regulated by the USEPA.

#### **4.3.1.7 Federal Surface Water Treatment Rule**

The Federal Surface Water Treatment Rule is implemented in the State of California by the California Surface Water Treatment Rule, which satisfies three specific requirements of the Federal SDWA by: (1) establishing criteria for determining when filtration is required for surface waters; (2) defining minimum levels of disinfection for surface waters; and (3) addressing *Cryptosporidium* spp., *Giardia lamblia*, *Legionella* spp., *E. coli*, viruses, turbidity, and heterotrophic plate count by setting a treatment technique. A treatment technique is set in lieu of an MCL for a contaminant when it is not technologically or economically feasible to measure that contaminant. The Surface Water Treatment Rule applies to all drinking water supply activities in California, and implementation is overseen by DPH.

<sup>19</sup>The maximum concentration of a pollutant that is allowed in drinking water systems; the level below which there is no known or expected risk to health.

<sup>20</sup> Raw water is untreated water from either a surface or groundwater source.

<sup>21</sup> Total Dissolved Solids (TDS) are the total amount of mobile charged ions, including minerals, salts or metals dissolved in a given volume of water, expressed in units of mg per unit volume of water (mg/L), also referred to as parts per million (ppm).

## **National Toxics Rule**

In 1992, pursuant to the CWA, the USEPA promulgated the National Toxics Rule (NTR) to establish water quality criteria for 14 states and two territories, including California, that had not complied fully with §303(c)(2)(B) of the CWA. As described in the preamble to the final NTR, when a state adopts water quality criteria consistent with the requirements of §303(c)(2)(B) of the CWA, and the USEPA approves, the USEPA will issue a rule amending the NTR to withdraw the federal criteria for that state. If the state's criteria are no less stringent than the promulgated federal criteria, the USEPA will withdraw its criteria and commence rulemaking without notice because additional comment on the criteria is unnecessary. However, if a state adopts criteria that are less stringent than the federally promulgated criteria, but in the USEPA's judgment fully meet the requirements of the CWA, the USEPA will provide an opportunity for public comment before withdrawing the federally promulgated criteria. The result is the California Toxics Rule (CTR) and the §303(d) list of impaired waters.

## **Long Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region**

The *Long-Term Management Strategy (LTMS) for the Placement of Dredged Material in the San Francisco Bay Region* is a cooperative effort of USEPA, USACE, the SWRCB, the San Francisco Bay RWQCB, and the San Francisco BCDC to develop a new approach to dredging and disposal of dredged materials in the San Francisco Bay Area. An average of six million cubic yards of sediment must be dredged every year to maintain safe navigation in and around San Francisco Bay, resulting in controversy surrounding appropriate management of such an effort. The following are the major goals of the LTMS:

- Maintain in an economically and environmentally sound manner those channels necessary for navigation in San Francisco Bay and Estuary and eliminate unnecessary dredging activities in the Bay and Estuary.
- Conduct dredged material disposal in the most environmentally sound manner.
- Maximize the use of dredged material as a resource.
- Establish a cooperative permitting framework for dredging and dredged material disposal applications.

The final policy environmental impact statement/programmatic environmental impact report for the LTMS addresses the salt ponds in and around south San Francisco Bay, mainly within the context of their role as habitat for the California least tern, snowy plover, California clapper rail, salt marsh harvest mouse, and California brown pelican. The presence of such species causes restrictions on potential management strategies, but disposal of dredged materials has potential benefits. For example, such disposal may create or restore seasonal wildlife habitats by raising and modifying topography, and thus improving wetland hydrology. Disposal of dredge material in the salt ponds would require a permit from the San Francisco BCDC.

## **Disinfectant and Disinfection Byproducts Rule**

The 1986 amendments to the federal SDWA required USEPA to propose a rule for disinfectants and disinfection byproducts. The rule must balance the need for protection from cancer-causing chemicals (byproducts) with the need for protection from pathogenic microbes (bacteria, viruses, and protozoans) that are killed by disinfection. In 1992, USEPA began a rulemaking process called the "Reg-Neg"

process. Negotiators in the process included staff members from State and local health and regulatory agencies, elected officials, consumer groups, environmental groups, and representatives from public water systems. The Reg-Neg process resulted in a two-stage approach for regulation development. The Stage 1 Disinfectant and Disinfection Byproduct Rule (DBP Rule) was promulgated in November 1998. Compounds affected under Stage 1 regulations of the DBP Rule include total trihalomethanes, total haloacetic acids, total organic carbon, bromate, chlorine, chloramines, chlorine dioxide, and chlorite.

The Stage 2 of the DBP Rule was promulgated in 2006. This final rule requires systems that deliver disinfected water to meet maximum contaminant levels as an average at each compliance monitoring location (instead of as a system-wide average as in previous rules) for two groups of DBPs, trihalomethanes and five haloacetic acids. The rule targets systems with the greatest risk and builds incrementally on existing rules. The rule also contains a risk-targeting approach to better identify monitoring sites where customers are exposed to high levels of DBPs.

### **Comprehensive Environmental Response, Compensation and Liability Act, as Amended**

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – or Superfund – provides federal funds to clean up uncontrolled or abandoned hazardous waste sites, accidents, spills, discharges, and other emergency releases of pollutants and contaminants into the environment. Through CERCLA, the USEPA was given power to seek out those parties responsible for any hazardous release, and assure their cooperation in the cleanup.

The Superfund Amendments and Reauthorization Act (SARA) of 1986 reauthorized CERCLA to continue cleanup activities around the country. Several site-specific amendments, definition clarifications, and technical requirements were added to the legislation, including additional enforcement authorities. Title III of SARA authorized the Emergency Planning and Community Right-to-Know Act.

### **Federal Insecticide, Fungicide, and Rodenticide Act, as Amended**

The Federal Insecticide, Fungicide, and Rodenticide Act mandates that the USEPA regulate the sale and use of pesticides to protect human health and to protect the environment. The Act was initially passed in 1972 and has been repeatedly amended. Amendments to the Act strengthen the registration process, enforce compliance against banned or unregistered chemicals, and provide a regulatory framework.

### **Federal Environmental Protection Agency Ambient Water Quality Criteria Recommendations for Rivers and Streams in Nutrient Ecoregion I**

Ecoregional nutrient criteria are developed to represent surface waters that are minimally impacted by human activities and thus protect against the adverse effects of nutrient over-enrichment from cultural eutrophication. The USEPA's recommended process for developing such criteria includes physical classification of waterbodies, determination of current reference conditions, evaluation of historical data and other information (such as published literature), use of models to simulate physical and ecological processes or determine empirical relationships among causal and response variables (if necessary), expert judgment, and evaluation of downstream effects. The USEPA has used elements of this process to produce the information contained in this document. The causal (total nitrogen, total phosphorus) and biological and physical response (chlorophyll *a*, turbidity) variables represent a set of starting points for states and tribes to use in establishing their own criteria.

### 4.3.2 State Plans, Policies, and Regulations

The following State regulations apply to surface water quality, but are discussed in another section of this chapter, as indicated in parentheses:

- Porter-Cologne Water Quality Control Act (Surface Water Resources)
- State Water Resources Control Board Decision 1641 (D-1641) (Surface Water Resources)
- Water Quality Control Plan for the Sacramento/San Joaquin River Basins (Surface Water Resources)
- San Francisco Bay Basin Water Quality Control Plan (Surface Water Resources)

#### 4.3.2.1 California Water Code, Section 13160

California Water Code, Section 13160, authorizes the SWRCB to act as the State water pollution control agency for purposes of compliance with Section 401 of the CWA. For an activity that may result in any discharge into navigable waters, Section 401 of the federal CWA requires a federal license or permit applicant to provide to the licensing or permitting agency a certification from the state in which the discharge originates that any such discharge will comply with State water quality standards and other appropriate requirements. The SWRCB administers the Section 401 program. Section 401 requires the SWRCB to find that there is a reasonable assurance that an activity will be conducted in a manner that will not violate applicable water quality standards and other appropriate requirements. Certification may be conditioned with other limitations to assure compliance with various CWA provisions.

#### 4.3.2.2 State Water Resources Control Board Water Rights Decisions, Water Quality Control Plans, and Water Quality Objectives

The preparation and adoption of WQCPs is required by the California Water Code and supported by the CWA. According to Section 13050 of the California Water Code, WQCPs consist of a designation or establishment for the waters within a specified area of beneficial uses to be protected, water quality objectives to protect those uses, and a program of implementation needed for achieving the objectives. Because beneficial uses, together with their corresponding water quality objectives, can be defined per federal regulations as water quality standards, the WQCPs are regulatory references for meeting the State and federal requirements for water quality control. One substantial difference between the State and federal programs is that California's WQCPs establish standards for groundwater in addition to surface water. Adoption or revision of surface water standards is subject to the approval of the USEPA.

The SWRCB Water Rights Division has primary regulatory authority over water supplies and issues permits for water rights—specifying amounts, conditions, and construction timetables—for diversion and storage facilities. Water rights decisions implement the objectives adopted in water quality control plans and reflect water availability, recognize prior water rights and flows needed to preserve instream uses (such as water quality and fish habitat), and whether the diversion of water is in the public interest.

WQCPs adopted by RWQCBs are primarily implemented through the NPDES permitting system and issuance of waste discharge requirements to regulate waste discharges so that water quality objectives are met. Basin plans provide the technical basis for determining waste discharge requirements and authorize the RWQCBs to take regulatory enforcement actions if deemed necessary.

#### 4.3.2.3 California Antidegradation Policy

The California Antidegradation Policy, formally known as the *Statement of Policy with Respect to Maintaining High Quality Waters in California* (SWRCB Resolution No. 68-16), restricts degradation of

surface and ground waters. In particular, this policy protects water bodies where existing quality is higher than necessary for the protection of beneficial uses. Pursuant to the Antidegradation Policy, any actions that can adversely affect water quality in all surface and ground waters must (1) be consistent with maximum benefit to the people of the state, (2) not unreasonably affect present and anticipated beneficial use of the water, and (3) not result in water quality less than that prescribed in water quality plans and policies. Furthermore, any CFR §131.12) developed pursuant to the CWA.

#### **4.3.2.4 Water Quality Control Plan for the San Francisco Bay/Sacramento–San Joaquin Delta Estuary**

The current WQCP in effect in the Delta is the 2006 WQCP for the San Francisco Bay/Sacramento–San Joaquin Delta Estuary. The WQCP identifies beneficial uses of water in the Delta to be protected, water quality objectives for the reasonable protection of beneficial uses, and an implementation program to achieve the water quality objectives.

The 2006 WQCP adoption did not involve substantial changes to the prior 1995 WQCP. The 1995 WQCP was developed as a result of the December 15, 1994 Bay Delta Accord, which committed the SWP and CVP to new Delta habitat objectives. The new objectives were adopted by amendment through a water rights decision (D1641) for SWP and CVP operations. One key feature of the 1995 WQCP is the estuarine habitat objectives (X2) for Suisun Bay and the western Delta. The X2 standard refers to the position at which 2 ppt salinity occurs in the Delta estuary, and is designed to improve shallow water fish habitat in the spring of each year. The X2 standard requires specific daily or 14-day salinity, or three-day averaged outflow requirements, to be met for a certain number of days each month from February through June.

Other elements of the WQCP include export-to-inflow ratios intended to reduce entrainment of fish at the export pumps, DCC gate closures, minimum Delta outflow requirements, and San Joaquin River salinity and flow standards.

#### **4.3.2.5 San Water Quality Control Plan for the North Coast**

The North Coast WQCP was adopted in May 2011 and is a comprehensive plan. The plan describes water quality, water quality issues, and current and potential beneficial uses of water. The major components of the plan are beneficial uses, water quality objectives, implementation plans, and surveillance and monitoring.

#### **4.3.2.6 Water Quality Control Plan for the Tulare Basin**

The Tulare Basin WQCP was adopted in January 2014 and is a comprehensive plan. The plan describes surface and groundwater quality, water quality issues, and current and potential beneficial uses of water. The major components of the plan are beneficial uses, water quality objectives, implementation plans, plans and policies, and surveillance and monitoring. The plan addresses numerous water quality issues including; groundwater overdraft, agricultural chemical, well standards, oilfield waste water, and water transfers.

#### **4.3.2.7 Central Valley Regional Water Quality Control Board Drinking Water Policy**

A commitment of the CALFED Bay-Delta Program ROD was the development of a new drinking water policy for Delta waters. Currently, both the Bay-Delta WQCP and the Sacramento-San Joaquin Basin Plan lack numeric water quality objectives for several known drinking water constituents of concern, such



as organic carbon and pathogens. In response to the CALFED commitment, the Central Valley RWQCB (CVRWQCB) is in the process of a multiyear effort to develop a drinking water policy for surface waters in the Central Valley. Existing policies and plans lack water quality objectives for several known drinking water constituents of concern, including DBP precursors and pathogens, and also lack implementation strategies to provide effective source water protection. The CVRWQCB Drinking Water Policy applies to Delta waters and any activities, such as discharges, that affect Delta water quality.

#### **4.3.2.8 California Toxics Rule**

As a result of a court-ordered revocation of California's statewide WQCP for priority pollutants in September 1994, CalEPA initiated efforts to promulgate additional numeric water quality criteria for California. In May 2000, CalEPA issued the CTR that promulgated numeric criteria for priority pollutants not included in the NTR. The CTR documentation carried forward the previously issued standards of the NTR, thereby providing a single document listing California's adopted and applicable water quality criteria for priority pollutants.

#### **4.3.2.9 California Safe Drinking Water Act**

In 1976, California enacted its own SDWA, requiring the Department of Public Health Services to regulate drinking water, including: setting and enforcing federal and State drinking water standards, administering water quality testing programs, and administering permits for public water system operations. The Federal SDWA allows the State to enforce its own standards in lieu of the federal standards so long as they are at least as protective as the federal standards. California's drinking water standards (e.g., MCLs) are the same or more stringent than the federal standards and include additional contaminants not regulated by the USEPA. Like the federal MCLs, California's primary MCLs address health concerns, while secondary MCLs address aesthetics, such as taste and odor. The California SDWA is administered by DPH primarily through a permit system.

## **4.4 Chapter 8: Fluvial Geomorphology and Riparian Habitat**

### **4.4.1 Federal Plans, Policies, and Regulations**

The following federal regulations are applicable to fluvial geomorphology and riparian habitat, but are discussed in other section of this chapter, as indicated in parentheses:

- Coordinated Operations Agreement (Surface Water Resources)
- 2009 National Marine Fisheries Service Biological Opinion (Surface Water Resources)

#### **4.4.1.1 Federal Endangered Species Act**

FESA requires that both the USFWS and NMFS maintain lists of Threatened and Endangered Species. An "Endangered Species" is defined as "...any species which is in danger of extinction throughout all or a significant portion of its range." A "Threatened Species" is defined as "...any species that is likely to become an Endangered Species within the foreseeable future throughout all or a significant portion of its range". Section 9 of FESA makes it illegal to "take" (i.e., harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct) any Endangered Species of fish, wildlife, or plants and contains similar provisions for most Threatened Species of fish, wildlife, and plants.

FESA also requires the designation of "critical habitat" for listed species. "Critical habitat" is defined as: (1) specific areas within the geographical area occupied by the species at the time of listing, if they

contain physical or biological features essential to a species' conservation, and those features may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species if the agency determines that the area itself is essential for conservation.

Section 7 of FESA requires all federal agencies to ensure that any action they authorize, fund, or carry-out is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat. To ensure against jeopardy, each federal agency must consult with USFWS or NMFS, or both, if the federal agency determines that its action might affect a listed species. NMFS' jurisdiction under FESA is limited to the protection of marine mammals, marine fish, and anadromous fish; all other species are within the jurisdiction of USFWS.

If an activity would result in the take of a federally listed species, one of the following is required: (1) an Incidental Take Permit issued as part of an approved Habitat Conservation Plan (HCP) under Section 10(a) of FESA; or (2) an Incidental Take Statement issued pursuant to federal interagency consultation under Section 7 of FESA. Such authorization typically requires various measures to avoid and minimize species take, and to protect the species and avoid jeopardy to the species continued existence.

Where a federal agency is not authorizing, funding, or carrying out a project, take that is incidental to the lawful operation of a project may be permitted pursuant to Section 10(a) of FESA through approval of an HCP.

### **U.S. Fish and Wildlife Service Operations Criteria and Plan Biological Opinion**

On December 15, 2008, the USFWS issued its biological opinion on the Operations Criteria and Plan (OCAP). The USFWS concurred with Reclamation's determination that the coordinated operations of the CVP and the SWP are not likely to adversely affect listed species, with the exception of delta smelt. The USFWS concluded that the coordinated operations of the CVP and the SWP, as proposed, were likely to jeopardize the continued existence of the delta smelt, and adversely modify delta smelt critical habitat. Although the opinion identified a number of stressors that affect delta smelt which are unrelated to CVP and SWP operations, their effects could not be assessed. Consequently, the USFWS developed RPAs as alternative actions to avoid the likelihood of jeopardizing the continued existence or the destruction or adverse modification of critical habitat for delta smelt. These actions include: (1) preventing/reducing entrainment of delta smelt at Jones and Banks pumping plants; (2) providing adequate habitat conditions that will allow the adult delta smelt to successfully migrate and spawn in the Bay-Delta; (3) providing adequate habitat conditions that will allow larvae and juvenile delta smelt to rear; and (4) providing suitable habitat conditions that will allow successful recruitment of juvenile delta smelt to adulthood. In addition, USFWS specified that it is essential to monitor delta smelt abundance and distribution through continued sampling programs through the Interagency Ecological Program (IEP).

## **4.4.2 State Plans, Policies, and Regulations**

### **4.4.2.1 Senate Bill 1086**

Senate Bill (SB) 1086 created the Sacramento River Conservation Area Advisory Council. The legislation required the development of a Sacramento River management plan which promotes the protection, restoration, and enhancement of both fisheries and riparian habitat while ensuring that other community needs are met, including agricultural production, public safety, public and private infrastructure, economic stability, and public recreation. The plan, the *Upper Sacramento River Fisheries and Riparian Habitat Management Plan*, was published in 1989.

#### **4.4.2.2 California Endangered Species Act of 1982**

The California Endangered Species Act (CESA) declares that deserving plant or animal species will be given protection by the State because they are of ecological, educational, historical, recreational, aesthetic, economic, and/or scientific value to the people of California. CESA established that it is State policy to conserve, protect, restore, and enhance endangered species and their habitats. CESA pertains only to State-listed rare, threatened, or endangered plant and wildlife species. CESA requires State agencies to consult with CDFG when preparing CEQA documents to ensure that agency actions do not jeopardize State-listed species.

### **4.5 Chapter 9: Flood Control and Management**

#### **4.5.1 Federal Plans, Policies, and Regulations**

##### **4.5.1.1 Executive Order 11988, Floodplain Management**

Executive Order (EO) 11988 requires federal agencies to avoid, to the extent possible, the long and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. In accomplishing this objective, “each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by flood plains in carrying out its responsibilities” for the following actions:

- Acquiring, managing, and disposing of federal lands and facilities
- Providing federally-undertaken, -financed, or -assisted construction and improvements
- Conducting federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulation, and licensing activities.

##### **4.5.1.2 Clean Water Act Section 408**

USACE’s §408 approval is required before approval and implementation of any proposed project that may affect any existing USACE (and/or Project) levee in the Central Valley and Delta. Section 2035 of the Federal Water Resources Development Act of 2007 requires that flood damage reduction projects be reviewed by independent experts if it is determined that a review is necessary to assure public health, safety, and welfare.

##### **4.5.1.3 Federal Emergency Management Agency**

The Federal Emergency Management Agency (FEMA) is responsible for maintaining minimum federal standards for floodplain management within the United States and territories of the United States. As discussed below, FEMA plays a major role in managing and regulating floodplains. FEMA is responsible for management of floodplain areas, which are defined as the lowland and relatively flat areas adjoining inland and coastal waters subject to a one percent or greater chance of flooding in any given year (the 100-year floodplain).

#### **National Flood Insurance Program**

The National Flood Insurance Program (NFIP) is administered primarily under two statutes: the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. The Federal Insurance Administration under FEMA administers NFIP. NFIP has two main components: (1) floodplain

management assistance and (2) flood insurance assistance. The purpose of flood insurance is to enable property owners to purchase insurance against losses from physical damage or the loss of buildings and their contents caused by floods, flood-related mudslides, or erosion. Insurance is available to property owners belonging to NFIP-participating communities. Participation in NFIP also makes communities eligible for federal flood disaster assistance. For a community to be eligible to participate in NFIP, the community must adopt a local floodplain management ordinance that meets or exceeds the minimum federal standards defined in 44 CFR 60 to 65. Participating communities must adhere to all floodplain management requirements, with oversight from FEMA, for all activities that may affect floodplains within the Special Flood Hazard Areas (SFHA).

### **Federal Emergency Management Agency Flood Zones**

FEMA mapping provides important guidance in planning for flooding events and regulating development within identified flood hazard areas. FEMA's NFIP is intended to encourage State and local governments to adopt responsible floodplain management programs and flood measures. As part of the program, NFIP defines floodplain and floodway boundaries that are shown on Flood Insurance Rate Maps (FIRMs). DWR completed work to map the 200-year floodplain for many areas of California.

### **Flood Zone Regulations**

SFHAs are subject to federal and State requirements, which are defined primarily by federal regulations at 44 CFR 60.3 and 44 CFR 65.12. The first citation requires the following:

These federal regulations are intended to address the need for effective floodplain management and provide assurance that the cumulative effects of floodplain encroachment do not cause more than a one foot rise in water surface elevation after the floodplain has been identified on the FIRM (local flood ordinances can set a more stringent standard). The absence of a detailed study or floodway delineation places the burden on the project proponent to perform an appropriate engineering analysis to prepare hydrologic and hydraulic analyses consistent with FEMA standards. These analyses would then be used to evaluate the proposed project together "with all other existing and anticipated development." Defining future anticipated development is difficult. The purpose of this requirement is to avoid inequitable encroachments into the floodplain.

### **FEMA Levee Design and Maintenance Regulations**

For levees to be accredited by FEMA, and to allow communities to participate in Preferred Risk programs of NFIP, evidence must be provided that adequate design, operation, and maintenance systems are in place to provide reasonable assurance that protection from the base flood (one percent annual chance of exceedance or 100-year flood) exists. These requirements are outlined in 44 CFR, Volume 1, Chapter I, Part 65.10.

#### ***4.5.1.4 Federal Emergency Management Agency 100-year Protection Standard***

The FEMA 100-year Protection Standard, often called the one percent annual chance flood level of protection, is based on criteria established in the CFR and is often used with established USACE criteria to meet certain freeboard, slope stability, seepage/under-seepage, erosion, and settlement requirements. Numerical hydrologic models are used to project surface water elevations at different locations in the rivers for the statistically probable 100-year flood event. Model runs are updated periodically to reflect changes in river bathymetry and historical hydrology. Meeting this level of flood protection means that communities will not require mandatory purchase of flood insurance for houses in the floodplain or be

subject to building restrictions. This standard generally does not address seismic stability. Currently, FEMA 100-year criteria are based on historical conditions and do not include considerations for climate change or sea level rise. FEMA is currently completing a study on the *Impact of Climate Change on the National Flood Insurance Program* to determine how to accommodate these factors and the long-term implications.

#### **4.5.1.5 U.S. Army Corps of Engineers**

The following discussion provides an overview of USACE's regulatory responsibilities that apply to navigable waters and construction within the ordinary high water mark of other waters of the U.S. In addition, USACE constructs flood control and risk management projects and monitors their operations and maintenance. It also provides emergency response to floods. These functions are described below.

##### **1936 Flood Control Act**

USACE constructs local flood control and risk management projects and navigation projects. The Flood Control Act of 1936 established a nationwide policy that flood control on navigable waters or their tributaries is in the interest of the general public welfare and is, therefore, a proper activity of the federal government in cooperation with states and local entities. The 1936 Flood Control Act, its amendments, and subsequent legislation specify details of federal participation. Projects are either specifically authorized through legislation by Congress or through a small projects blanket authority. Typically, a feasibility study is done to determine federal interest before authorization or construction.

##### **U.S. Army Corps of Engineers Rehabilitation and Inspection Program**

The Rehabilitation and Inspection Program is a USACE program that provides for the inspection of flood-control projects, the rehabilitation of damaged flood-control projects, and the rehabilitation of federally authorized and constructed hurricane or shore-protection projects. Levees in the program are eligible for federally funded repair and rehabilitation for damage induced by flood events, provided funding is available. The project levees (those levees previously authorized or constructed under a federal flood-control project) are eligible for the program as long as the non-federal sponsor maintains the levees to certain federal standards. Repairs and rehabilitation are accomplished under provisions of Public Law 84-99, with some cost-sharing normally required for non-project levees. Non-project levees are managed and maintained by local districts, as opposed to project levees, which are part of a larger regional or State project, and managed and maintained by a federal or State agency.

##### **Operations and Maintenance Controls, Flood Control Projects**

The maintenance and operation of federal project levee structures is discussed in 33 CFR 208.10. According to these regulations, no improvement shall be passed over, under, or through the walls, levees, improved channels, or floodways, nor shall any excavation or construction be permitted within the limits of the project right-of-way, nor shall any change be made in any feature of the works without prior determination by the District Engineer of the Department of the Army or his or her authorized representative that such improvement, excavation, construction, or alteration will not adversely affect the function of the protective facilities. This regulation is the basis for requiring a permit prior to any construction at federal project levees. Types of alterations/modifications typically covered by a CFR 208 permit include bridges, pump houses, stairs, pipes, bike trails, and power poles.



## **Rivers and Harbors Act Section 14**

33 United States Code 408 and Section 14 of the Rivers and Harbors Act provide that the Secretary of the Army, on the recommendation of the Chief of Engineers, may grant permission for the temporary occupation or use of any sea wall, bulkhead, jetty, dike, levee, wharf, pier, or other work built by the United States. This permission will be granted by an appropriate real estate instrument in accordance with existing real estate regulations. This regulation is used to require permits prior to modifications of federal project levees. Types of alterations typically requiring a Section 408 permit are major modifications such as degradations, raisings, and realignments.

### **4.5.2 State Plans, Policies, and Regulations**

#### **4.5.2.1 Central Valley Flood Protection Board Approval**

The Central Valley Flood Protection Board (CVFPB) was previously known as the Reclamation Board. In 1855, California passed the Reclamation District (RD) Act providing for the sale of swamp lands. RDs were formed and were regulated so that construction of levees occurred along hydrologic boundaries (rather than along property lines). Islands in the Delta are ringed with levees that have their own districts for maintenance.

The CVFPB mission is to control flooding along the Sacramento and San Joaquin rivers and their tributaries in cooperation with USACE; to cooperate with various federal, State, and local agencies in establishing, planning, constructing, operating, and maintaining flood control works; and to maintain the integrity of the existing flood control system and designated floodways through the CVFPB's regulatory authority by issuing permits for encroachments.

CVFPB is a major sponsor of federal flood risk management projects. It shares in construction cost; provides lands, easements, and rights-of-way; and assumes responsibility for operation and maintenance. CVFPB also approves or denies plans for reclamation, dredging, or improvements that alter any project levee. It has the authority to approve or deny any land reclamation plan (related to public works) or flood protection that involves excavation near rivers and tributaries, and has legal responsibility for oversight of the entire Central Valley flood management system.

#### **4.5.2.2 Assembly Bill 1200**

Assembly Bill (AB) 1200 highlighted the complex Delta water issues. AB 1200 amends Section 139.2 of the Water Code to read "The department shall evaluate the potential impacts on water supplies derived from the Delta based on 50-, 100-, and 200-year projections for each of the following possible impacts on the Delta": subsidence; earthquakes; floods; changes in precipitation, temperature, and ocean levels; or any combination of these impacts.

The bill directs DWR and CDFG to report to the Legislature and Governor on the potential impacts of levee failures on Delta water supplies, options to reduce the impacts of these factors, and options to restore salmon and other fisheries that use the Delta estuary.

In response to the bill, DWR and CDFG have issued a report, *Risks and Options to Reduce Risks to Fishery and Water Supply Uses of the Sacramento/San Joaquin Delta*, dated January 2008. This report summarizes the potential risks to water supplies in the Sacramento-San Joaquin Delta attributable to future subsidence, earthquakes, floods, and climate change, and identifies improvements to reduce the impacts and options to deliver water.

#### **4.5.2.3 Department of Water Resources' FloodSAFE California Initiative**

In January 2005, Governor Arnold Schwarzenegger called for improved maintenance, system rehabilitation, effective emergency response, and sustainable funding to lower flood risks in California. In 2006, DWR launched FloodSAFE California, a multifaceted program to improve public safety through integrated flood management. Water Code Section 9602 (added by SB 5) requires a minimum level of flood protection for urban areas in the Sacramento and San Joaquin river watersheds. These areas must be able to withstand flooding that has a one-in-200 annual chance of occurrence. State Propositions 1E and 84, with legislative direction, allocated 67 percent of FloodSAFE funds to the Central Valley and Delta for repairs and improvements to levees and flood projects. FloodSAFE goals include reducing the frequency and size of flooding of communities, reducing the consequences of flooding, and protecting and enhancing ecosystems.

#### **4.5.2.4 The State Plan of Flood Control Descriptive Document**

DWR completed the State Plan of Flood Control (SPFC) Descriptive Document (November 2010) to meet the legislative requirements of California Water Code §9614, in part, for the Central Valley Flood Protection Plan (CVFPP). The SPFC Descriptive Document provides the first complete inventory and description of the SPFC as defined in §9110(f) of the California Water Code:

*“State Plan of Flood Control” means the State and federal flood control works, lands, programs, plans, conditions, and mode of maintenance and operations of the Sacramento River Flood Control Project described in §8350, and of flood control projects in the Sacramento River and San Joaquin River watersheds authorized pursuant to Article 2 (commencing with §12648) of Chapter 2 of Part 6 of Division 6 for which the board or the department has provided the assurances of nonfederal cooperation to the United States, and those facilities identified in §8361.”*

The State-federal flood protection system comprises federally- and State-authorized projects for which the CVFPB or DWR has provided assurances of cooperation to the United States federal government. These CVFPB- or DWR-provided assurances, coupled with State authorization, are an important distinction for what constitutes the State-federal flood protection system. Other flood protection facilities in the Sacramento River and San Joaquin River watersheds that are not covered by assurances to the federal government from the CVFPB or DWR are not part of the State-federal flood protection system or SPFC, but are included in the Sacramento-San Joaquin River Flood Management System defined in the California Water Code §9611.

#### **4.5.2.5 Senate Bill 5**

SB 5, signed into law in October 2007, updates the California Health and Safety Code to require DWR to propose updated requirements to the California Building Standards Code. The requirements proposed for adoption and approval by the California Building Standards Commission would be for construction in areas protected by the facilities of the CVFPP where flood levels are anticipated to exceed three feet for the 200-year flood event. Before DWR proposes the amendments to the California Building Standards Code, the Department is to consult with the CVFPB, the Division of the State Architect, and the Office of the State Fire Marshal.

#### **4.5.2.6 Assembly Bill 162**

AB 162 requires the land use element of the general plan of any city or county located within the boundaries of the Sacramento-San Joaquin Drainage District to identify and annually review those areas covered by the general plan that are subject to flooding as identified by flood plain mapping prepared by FEMA or DWR. The bill also requires, upon the next revision of the housing element, on or after January 1, 2009, the conservation element of the general plan to identify rivers, creeks, streams, flood corridors, riparian habitat, and land that may accommodate floodwater for purposes of groundwater recharge and stormwater management.

This bill also requires, upon the next revision of the housing element, on or after January 1, 2009, the safety element to identify, among other things, information regarding flood hazards and to establish a set of comprehensive goals, policies, and objectives, based on specified information for the protection of the community from, among other things, the unreasonable risks of flooding.

#### **4.5.2.7 California Water Code**

The Senate and Assembly bills identified above have resulted in various changes and additions to the California Water Code, including Section 8609. Section 8609 states that the board may designate floodways throughout the Sacramento and San Joaquin rivers drainage to control encroachments in, and to preserve the flow regimens of, floodways for the purpose of protecting public improvements, lives, land use values, and improvements created in reliance upon historical flooding patterns. "Sacramento and San Joaquin Rivers drainage," or equivalent language, means all lands currently and historically drained by the Sacramento River and the San Joaquin River and their tributaries and distributaries.

#### **California Water Code, Division 3: Dams and Reservoirs**

California Water Code, Division 3: Dams and Reservoirs requires DWRs Division of Safety of Dams (DSOD) to supervise the construction, maintenance, and operation of dams and reservoirs to safeguard life and property from injury due to failure. The code section further requires DWR to evaluate the possibility that a dam or reservoir might be endangered due to seepage, earth movement or other conditions and to require the dam or reservoir owner to take appropriate actions to remove the danger to life and property. Federally owned dams and reservoirs are not under State jurisdiction, except as noted under federal law.

#### **Sacramento-San Joaquin River Basin Comprehensive Study**

The Comprehensive Study, which has been undertaken as a collaborative effort between USACE and DWR, released the first interim report in late 2002. The CVFPB will provide the administrative structure of the plan developed per the Comprehensive Study.

#### **Sacramento River Flood Control Project**

The Sacramento River Flood Control Project (SRFCP) is actually six interrelated projects undertaken by USACE, including reservoirs constructed on major rivers, which constitute the largest flood control system in the State. Project facilities extend from north of Colusa County southward to the Sacramento-San Joaquin Delta, approximately 230 miles along the Sacramento River corridor. Levees and associated facilities of the SRFCP have been constructed along five rivers, 15 creeks and 13 sloughs. In addition, human-made or human-modified facilities include six bypasses and 11 channels.

## **Sacramento River Bank Protection Project**

As authorized by the Flood Control Act of 1970, the Sacramento River Bank Protection Project (SRBPP) is an ongoing construction and maintenance project. The SRBPP provides protection for existing flood control infrastructure, including levees, of the SRFCP.

### **4.5.3 Regional and Local Plans, Policies, and Regulations**

#### **4.5.3.1 Glenn County General Plan**

Section 5.25 of the Glenn County General Plan identifies the following policies to address potential flood hazards:

- Recognize the special status of lands located within the designated floodways adopted by the State Reclamation Board.
- Support efforts to revise the FEMA FIRMs for the areas around Hamilton City, Willows, and Orland in order to improve their accuracy.
- Endeavor to avoid areas subject to flooding when considering approval of new development.
- Require the installation of storm drain and other flood protection/prevention improvements as a condition of all new development approvals.
- Encourage the formation of a countywide service area or individual storm drain maintenance districts to finance and construct needed flood control improvements.

#### **4.5.3.2 Colusa County General Plan**

The Colusa County General Plan identifies the following policies related to flood protection:

- **SAFE-1:** Floodplains should generally be maintained as open space. In these areas, their use for agriculture, recreation, preservation of vegetation and wildlife habitat, and scenery should be encouraged.
- **SAFE-2:** Urban development should be discouraged in the 100-year floodplain. Any habitable structure which is permitted shall be built so that the first floor of living area is above the 100-year flood elevation.
- **SAFE-3:** No critical or high-occupancy structures such as schools, hospitals, police, facilities, or fire stations should be built within the 100-year floodplain.
- **SAFE-4:** The County should support coordinated efforts to maintain levees along the Sacramento River and the 2047 canal.
- **SAFE-5:** Flood control policies in the Community Services Element should be supported to reduce the hazards associated with flooding.

#### **4.5.3.3 Colusa County Code, Chapter 33: Flood Damage Prevention**

It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- (A) Protect human life and health;
- (B) Minimize expenditure of public money for costly flood control projects;
- (C) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (D) Minimize prolonged business interruptions;
- (E) Minimize damage to public facilities and utilities such as water and gas mains; electric, telephone and sewer lines; and streets and bridges located in areas of special flood hazard;
- (F) Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future blighted areas caused by flood damage,
- (G) Ensure that potential buyers are notified that property is in an area of special flood hazard; and
- (H) Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

To accomplish its purposes, this section includes methods and provisions to:

- (A) Restrict or prohibit uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities;
- (B) Control filling, grading, dredging, and other development which may increase flood damage;
- (C) Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- (D) Control the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters; and
- (E) Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.

A development permit shall be obtained before any construction or other development begins within any area of special flood hazard established in Section 33-3.2. Application for a development permit shall be made on forms furnished by the floodplain administrator and may include, but not be limited to: plans in duplicate drawn to scale showing the nature, location, dimensions, and elevation of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing. Specifically, the following information is required:

- (a) Proposed elevation in relation to mean sea level, of the lowest floor (including basement) of all structures in zone A, elevation of highest adjacent grade and proposed elevation of lowest floor of all structures; or
- (b) Proposed elevation in relation to mean sea level to which any nonresidential structure will be flood-proofed, if required in Subsection 33-5.1(C)(3); and



- (c) All appropriate certifications listed in Subsection 33.4.3(d) of this chapter; and
- (d) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

#### **4.5.3.4 Colusa County Flood Control and Conservation District**

The Colusa County Flood Control and Conservation District (District) is overseen by the County Board of Supervisors. The purpose of the District is to plan and obtain funding for flood control activities, measures, and projects within the County.

#### **4.5.3.5 Colusa County Floodplain Administrator**

The Colusa County Director of Public Works is appointed to administer, implement and enforce Chapter 33 (Flood Damage Prevention) of the Colusa County Code regulations relating to flood management.

The floodplain administrator must:

- Review all development permits to determine that all county, State, and federal permits have been obtained; that a development site is reasonably safe from flooding, and that the proposed development will not adversely alter existing base flood elevations
- Review other base flood data obtained from a federal, State, or other source before its use, and must submit the additional base flood data to the county for adoption
- Notify adjacent communities, DWR, the Federal Insurance Administration, and FEMA prior to the alteration or relocation of a watercourse
- Certify, maintain, and make available to the public documentation of floodplain development including lowest floor elevations and pad elevations for proposed structures, flood-proofing of non-residential structures, and floodway encroachments
- Make flood hazard map boundary location determinations

The floodplain administrator has the authority to take action to remedy code violations and to decide appeals regarding the enforcement and administration of Chapter 33 codes.

## **4.6 Chapter 10: Groundwater Resources**

### **4.6.1 Federal Plans, Policies, and Regulations**

The following federal regulations are applicable to groundwater resources, but are discussed in other sections of this chapter, as indicated in parentheses:

- National Environmental Policy Act (General)Federal Safe Drinking Water Act (42 USC 300f) (Surface Water Quality)
- Federal Antidegradation Policy (40 CFR 131.6) (Surface Water Quality)
- Clean Water Act (33 USC 1251–1376) (Surface Water Resources)

These regulations were not specifically promulgated to protect or administer regulations related to groundwater. However, their implementation may directly or indirectly affect groundwater conditions.

## **4.6.2 State Plans, Policies, and Regulations**

The following State regulation is applicable to groundwater resources, but is discussed in another section of this chapter, as indicated in parentheses:

- California Environmental Quality Act (General)

California does not regulate the overall use, entitlement, and management of groundwater. Although statewide groundwater regulations have been considered several times in the past, the California Legislature considers groundwater management to be a local responsibility. Several State regulations do specifically address groundwater, and others include groundwater among other physical units, such as surface water. Most of the regulations that include groundwater among other regulated entities are presented in other sections. State regulations that specifically address groundwater as the primary objective or as a major component are presented below.

### **4.6.2.1 Area of Origin Statute Limitations (California Water Code 1220)**

California Water Code 1220 prohibits the pumping of groundwater “for export within the combined Sacramento and Delta-Central Sierra Basins...unless the pumping is in compliance with a groundwater management plan that is adopted by [county] ordinance.” The statute enables, but does not require, the board of supervisors of any county within any part of the combined Sacramento and Delta-Central Sierra Basin to adopt groundwater management plans (GWMPs).

### **4.6.2.2 Groundwater Management (Assembly Bill 3030)**

AB 3030 (1992) enables local water agencies to develop and implement GWMPs to manage the groundwater resources in the jurisdiction of the participating parties. The State does not maintain a statewide program or mandate its implementation, but the legislation provides the guidelines and common framework through which groundwater management can be implemented. Groundwater management legislation was amended in 2002 with the passage of SB 1938, which provided additional groundwater management components supporting eligibility to obtain public funding for groundwater projects. In 2000, AB 3030 enabled the development of the Local Groundwater Assistance Grant Program which provides financial support to local public agencies that are developing groundwater management and monitoring programs in their area.

## **4.7 Chapter 11: Groundwater Quality**

### **4.7.1 Federal Plans, Policies, and Regulations**

The following federal regulations are applicable to groundwater quality, but are discussed in other sections of this chapter, as indicated in parentheses:

- Federal Safe Drinking Water Act of 1974 (Surface Water Quality)
- Clean Water Act of 1977 (Surface Water Resources)
- Federal Antidegradation Policy (Surface Water Quality)
- Porter-Cologne Water Quality Control Act (Surface Water Resources)

## **4.7.2 State Plans, Policies, and Regulations**

The following State regulations apply to groundwater quality, but are discussed in other sections of this chapter, as indicated in parentheses:

- California Antidegradation Policy (Surface Water Quality)
- Water Quality Control Plan for California Regional Water Quality Control Board Central Valley Region (Surface Water Quality)
- Water Quality Control Plan for the San Francisco Bay/Sacramento San Joaquin Delta Estuary (Surface Water Quality)
- Water Quality Control Plan for Tulare Lake Basin (Surface Water Quality)
- Water Quality Control Plan for the North Coast Region (Surface Water Quality)
- Water Quality Control Plan for the Sacramento/San Joaquin River Basins (Surface Water Resources)
- San Francisco Bay Basin Water Quality Control Plan (Surface Water Resources)

### **4.7.2.1 California Code of Regulations – Underground Storage Tanks and Oil or Gas Wells**

Title 23, Division 3, Chapter 16, Article 7 of the California Code of Regulations (CCR) describes the underground storage tank closure requirements which shall be accomplished in order to protect water quality. The requirements for permanent closure in place or removal apply to those underground storage tanks in which the storage of hazardous substances has ceased and tanks will not be used, or are not intended for use, for the storage of hazardous substances within the next 12 consecutive months.

Title 14, Division 2, Chapter 4, Article 3 of the CCR describes the rules and regulations governing the environmental protection measures that shall be taken when plugging and abandoning oil or gas wells. Requirements include the removal of all tanks, above-ground pipelines, debris, and other facilities and equipment.

## **4.7.3 Regional and Local Plans, Policies, and Regulations**

The following local regulations apply to groundwater quality, but are described in other sections of this chapter, as indicated in parentheses:

- Glenn County General Plan (General)
- Colusa County General Plan (General)

### **4.7.3.1 Glenn County Groundwater Ordinance and Management Plan**

The Glenn County groundwater management area includes areas of the county where irrigated agriculture is conducted, which is subdivided into 17 sub-areas and managed by individual sub-area, rather than at a countywide level. The Glenn County GWMP is based on established basin management objectives for minimum groundwater levels, minimum water quality, and maximum inelastic subsidence.

### **4.7.3.2 Colusa County Groundwater Management Plan**

The Colusa County GWMP describes the groundwater management goals, basin management objectives, specific actions that will be implemented to manage groundwater resources, and a detailed groundwater

management process that will be followed to achieve the groundwater management goals at a county-wide level. The plan is intended to be implemented in concert with the adopted groundwater management plans of existing water and irrigation districts, reclamation districts, cities, and public utility districts.

## **4.8 Chapter 12: Aquatic Biological Resources**

### **4.8.1 Federal Plans, Policies, and Regulations**

The following federal regulations are applicable to aquatic biological resources, but are discussed in other sections of this chapter, as indicated in parentheses:

- Federal Endangered Species Act (Fluvial Geomorphology and Riparian Habitat)
- USFWS Operations Criteria and Plan Biological Opinion (Fluvial Geomorphology and Riparian Habitat)
- NMFS Operations Criteria and Plan Biological Opinion (Surface Water Resources)
- Clean Water Act (Surface Water Resources)
- Rivers and Harbors Act (Surface Water Quality)
- Central Valley Project Improvement Act (Surface Water Resources)
- National Environmental Policy Act (General)

#### **4.8.1.1 Magnuson-Stevens Fishery Conservation and Management Act**

The Magnuson-Stevens Fishery Conservation and Management Act is the principal law governing marine fisheries in the United States. The purpose of this federal act is to conserve and manage anadromous fishery resources of the United States. The act establishes eight Regional Fishery Management Councils to prepare, monitor, and revise fishery management plans, which will achieve and maintain the optimum yield from each fishery. In California, the Pacific Fishery Management Council (PFMC) is responsible for achieving the objectives of the statute. The Secretary of Commerce has oversight authority. The statute was amended in 1996 to establish a new requirement to describe and identify “essential fish habitat” (EFH) in each fishery management plan. EFH is defined as “those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity.” EFH also includes all habitats necessary to allow the production of commercially valuable aquatic species, to support a long-term sustainable fishery, and contribute to a healthy ecosystem.

EFH has been established by the National Oceanic and Atmospheric Administration Fisheries for waters in California supporting anadromous fish. In 1999, the Pacific Fishery Management Council identified EFH for Central Valley Chinook salmon stocks to include the Sacramento and San Joaquin rivers.

#### **4.8.1.2 U.S. Fish and Wildlife Service Recovery Plan for Sacramento-San Joaquin Delta Native Fishes**

This recovery plan covers eight species of concern, including the delta smelt, longfin smelt, Sacramento splittail, Sacramento perch, green sturgeon, spring-, late fall-, and San Joaquin fall-run Chinook salmon. The basic goal of the plan is to establish self-sustaining populations of these species. The purpose and scope of the plan is to outline a strategy for the conservation and restoration of the Sacramento-San

Joaquin Delta that currently supports or has the potential to support Delta native fishes. It is intended to fulfill one of the primary purposes under Section 2 of FESA, which is to provide a means for the conservation of ecosystems upon which endangered and threatened species depend.

Since the Recovery Plan for Sacramento-San Joaquin Delta Native Fishes was released in 1996, new information regarding the status, biology, and threats to Delta native species has emerged. Ongoing revision of the plan will review the new information and develop a strategy for the conservation and restoration of Delta native fish through the identification of recovery actions that specifically address the threats to their existence.

#### **4.8.1.3 National Marine Fisheries Service Recovery Planning for Salmon and Steelhead in California**

In the Central Valley, NMFS is responsible for facilitating the development of recovery plans for:

- The Sacramento River Winter-run Chinook Salmon Evolutionarily Significant Unit (ESU)<sup>22</sup>
- The Central Valley Spring-run Chinook Salmon ESU
- Central Valley Steelhead Distinct Population Segment (DPS)
- The Southern DPS of North American Green Sturgeon

The California Central Valley Recovery Domain<sup>23</sup> extends from the upper Sacramento River Valley to the northern portion of the San Joaquin River Valley. The Public Draft Recovery Plan for the ESUs of Sacramento River winter-run Chinook salmon and Central Valley spring-run Chinook salmon and the DPS of Central Valley steelhead was released in October 2009. A recovery plan for green sturgeon will be developed in the future by NMFS.

The NMFS Technical Recovery Team has produced four documents on:

- Current and historical population distributions of winter- and spring-run Chinook salmon
- Historical population distributions of Central Valley steelhead
- Population viability
- Research and monitoring needs

These documents provided the foundation for the Public Draft Central Valley Salmonid Recovery Plan. The recovery plan's objective is to reintroduce salmonid populations in historic habitats and reduce threats to the populations.

For the Central Valley Chinook salmon ESUs and the steelhead DPS to achieve recovery, each diversity group must be represented, and population redundancy within the groups must be met to achieve diversity group recovery. Several priority recovery actions to address specific limiting factors were identified by NMFS to help meet recovery objectives:

- Protect and restore watershed and estuarine habitat complexity and connectivity
- Improve understanding of life stage survival through focused research and monitoring

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<sup>22</sup> Evolutionary significant unit- a population of organisms that is considered distinct for the purpose of conservation. This term is functionally the same as a distinct population segment, but this term is primarily used by USFWS.

<sup>23</sup> California Central Valley Recovery Domain extends from the upper Sacramento River Valley to the northern portion of the San Joaquin River Valley.



- Establish at least two additional populations of winter-run Chinook salmon that are spatially diverse and secure from natural and human-made threats
- Develop more effective and efficient federal and State mechanisms to correct already documented threats to listed salmonids
- Collaboratively balance water supply and allocation with fisheries' needs through improving criteria for water drafting, storage and dam operations, water right programs, development of passive diversion devices and/or offstream storage, elimination of illegal diversions (accusation of diverting water without an appropriate permit) in priority watersheds and streams, and other such opportunities
- Screen appropriate water diversions and provide adequate downstream flows
- Provide outreach to federal action agencies regarding FESA Section 7(a)(1) and carry out programs to conserve and recover federally listed salmonids
- Identify and treat point and non-point source pollution to streams from wastewater, agricultural practices, and urban environments

#### **4.8.1.4 Fish and Wildlife Coordination Act**

The Fish and Wildlife Coordination Act (FWCA) gives the U.S. Secretary of Interior the authority to provide assistance to federal, State, public, or private agencies in developing, protecting, rearing, or stocking all wildlife, wildlife resources, and their habitats. Under the FWCA, whenever waters of any stream or other water body are proposed to be impounded, diverted, or otherwise modified by any public or private agency under federal permit, that agency must consult with the USFWS and, in California, the CDFG.

#### **4.8.1.5 Anadromous Fish Restoration Program**

An important goal identified to meet the fish and wildlife purposes of the CVPIA is the broad goal of restoring natural populations of anadromous fish (e.g., Chinook salmon, steelhead, green sturgeon, white sturgeon, American shad, and striped bass) in Central Valley rivers and streams to double their recent average abundance levels. The Anadromous Fish Restoration Program strives to achieve this goal by directing the Secretary of the Interior to develop and implement a program to ensure the sustainability of anadromous fish in Central Valley Rivers and streams.

#### **4.8.1.6 CALFED Bay-Delta Program**

In 1994, CALFED was initiated to address long-standing and unresolved conflicts over water use in the Sacramento–San Joaquin Delta. It was a collaborative program of 23 federal and State agencies. Its goal was to restore the ecological health of the Delta while ensuring an adequate supply for Delta water users, including the CVP and SWP.

#### **4.8.1.7 National Invasive Species Act of 1996**

The National Invasive Species Act reauthorizes and amends the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 to mandate regulations to reduce environmental and economic

impacts from invasive species and to prevent introduction and spread of aquatic nuisance species, primarily through ballast water<sup>24</sup>.

#### **4.8.1.8 Trinity River Restoration Program**

The Trinity River Restoration Program (TRRP) was implemented in 2001 following the issuance of the TRRP ROD. The purpose of the TRRP is to restore and maintain the natural production of anadromous fish in the Trinity River Basin downstream of Lewiston Dam, including fishery restoration to pre-Trinity River Diversion (TRD) levels, and to meet the U.S. Government's tribal trust obligations. The TRRP includes actions that: (1) re-establish the natural physical processes that create and maintain high quality aquatic habitat; and (2) create spawning and rearing conditions downstream of the dams that best compensate for lost habitat upstream, including adequate water temperatures.

The goal of the TRRP is not to re-create pre-dam conditions; rather, the goal is to create a smaller, dynamic, alluvial channel exhibiting all the characteristics of the pre-dam river but at a smaller scale. This strategy is intended to best achieve the restoration goals and maintain the purpose and use of the TRD.

Components of the TRRP include flow management for geomorphic and riparian processes, flow management for temperature and habitat, channel and watershed restoration, coarse sediment management, and adaptive management and monitoring.

#### **4.8.1.9 Central Valley Project Long-term Water Service Contracts and the State Water Project Operations Criteria and Plan**

The long-term CVP and SWP OCAP serves as the operational standard by which Reclamation and DWR operate the CVP and SWP system. The OCAP describes how Reclamation and DWR operate the CVP and the SWP to divert, store, and convey water consistent with applicable law. Reclamation and DWR completed an update to the OCAP in 2008 to reflect recent operational and environmental changes occurring throughout the CVP and SWP system.

### **4.8.2 State Plans, Policies, and Regulations**

The following State regulations are applicable to aquatic biological resources, but are discussed in other sections of this chapter, as indicated in parentheses:

- California Endangered Species Act (Fluvial Geomorphology and Riparian Habitat)
- California Environmental Quality Act (General)
- Water Quality Control Plan for the San Francisco Bay/Sacramento–San Joaquin Delta Estuary (Surface Water Quality)

#### **4.8.2.1 California Department of Fish and Game Code Section 1602 (Streambed Alteration)**

Section 1602 of the CDFG Code states that any entity proposing to substantially divert or obstruct the natural flow or alter streambed materials, channel, or bank in any river, stream, or lake must provide a detailed description and map of the proposed project location, name and description of the river, stream, or lake affected by streamflow diversions, and copies of applicable local, State, or federal permits and/or other documents already issued. The regulatory definition of a stream is a body of water that flows at least

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<sup>24</sup> Ballast water is the water inside the hull of a boat used to provide stability and prevent the boat from capsizing

periodically or intermittently through a bed or channel having banks and supports wildlife, fish, or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation. CDFG's jurisdiction within altered or artificial waterways is based on the value of those waterways to fish and wildlife.

#### **4.8.2.2 The Salmon, Steelhead Trout, and Anadromous Fisheries Program Act**

Enacted in 1988, the Salmon, Steelhead Trout and Anadromous Fisheries Program Act was implemented in response to reports that the natural production of salmon and steelhead in California had declined dramatically since the 1940s, primarily as a result of lost stream habitat on many streams in the State. The Salmon, Steelhead Trout, and Anadromous Fisheries Program Act declares that it is the policy of the State of California to increase the State's salmon and steelhead resources, and directs CDFG to develop a plan and program that strives to double the salmon and steelhead resources (CDFG Code §6902(a)). It is also the policy of the State that existing natural salmon and steelhead habitat shall not be diminished further without offsetting the impacts of lost habitat (CDFG Code §6902(c)).

#### **4.8.2.3 Natural Community Conservation Planning Act**

The Natural Community Conservation Planning Act (NCCPA) authorizes the NCCP program to design projects for and promote conservation of natural communities, while accommodating compatible land use. The NCCP program is broader in its orientation and objectives than CESA and FESA. Both ESA laws are designed to identify and protect individual species that have already significantly declined in number; the primary objective of the NCCP program is to conserve natural communities at the ecosystem level while accommodating compatible land use. The program seeks to prevent the controversies and gridlock caused by species' being listed. The intention of the plan is to provide protection for natural communities and the endangered, threatened, candidate, or other species known, or reasonably expected to be found in those communities. It does this by focusing on the long-term stability of wildlife and plant communities. Working with landowners, environmental organizations, and other interested parties, a local agency oversees the numerous activities that compose the development of a conservation plan. CDFG and USFWS provide the necessary support, direction, and guidance to NCCP participants.

#### **4.8.2.4 California Department of Fish and Game Code Section 5937 (Flows Below Dams)**

Fish and Game Code 5937 states that "the owner of any dam shall allow sufficient water at all times to pass through a fishway, or in the absence of a fishway, allow sufficient water to pass over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam. During the minimum flow of water in any river or stream, permission may be granted by the department to the owner of any dam to allow sufficient water to pass through a culvert, waste gate, or over or around the dam, to keep in good condition any fish that may be planted or exist below the dam, when, in the judgment of the department, it is impracticable or detrimental to the owner to pass the water through the fishway."

#### **4.8.2.5 California Department of Fish and Game Code Sections 5980–5993 (Fish Screening)**

Sections 5980 to 5993 of the CDFG Code states that conduits with a maximum flow capacity greater than 250 cubic feet per second of water must be examined by CDFG. It is the responsibility of the owner of a

conduit to install a screen when deemed by CDFG that it is necessary to prevent fish from passing into the conduit.

#### **4.8.2.6 California Aquatic Invasive Species Management Plan**

The California Aquatic Invasive Species Management Plan proposes management actions for addressing aquatic invasive species threats to the State of California. It focuses on the nonnative algae, crabs, clams, fish, plants and other species that continue to invade California's creeks, wetlands, rivers, bays and coastal waters.

### **4.8.3 Regional and Local Plans, Policies, and Regulations**

#### **4.8.3.1 Interagency Ecological Program Pelagic Organism Decline Studies and the CALFED State of the Bay-Delta Science Report**

Since late 2004, scientific and public attention has focused on the unexpected decline of several pelagic (open-water) fishes (delta smelt, longfin smelt, juvenile striped bass, and threadfin shad) in the freshwater portion of the estuary known as the Delta. This decline has collectively become known as the Pelagic Organism Decline (POD). In 2005, the IEP formed a multi-agency POD Management Team tasked with designing and managing a comprehensive study to evaluate the causes of the decline and to synthesize and report the results. The IEP POD Team investigated three possible causes of POD (water project operations, contaminants, and invasive species). Final reports from the POD Management Team were issued in 2005 through 2010.

#### **4.8.3.2 Delta Vision Strategic Plan**

The intent of the Delta Vision Strategic Plan (Delta Vision) process is to identify a strategy for managing the Delta as a sustainable ecosystem that will continue to support environmental and economic functions which are critical to the people of California. The Delta Vision Blue Ribbon Task Force (Task Force), a Governor Schwarzenegger appointed panel, is charged with developing recommendations on priority actions that should be taken to achieve a sustainable Delta in the long-term. The Delta Vision has a broader focus than the CALFED Ecosystem Restoration Program, and the Task Force will issue recommendations that address the full array of natural resources, infrastructure, land use, and governance issues necessary to achieve a sustainable Delta. The Delta Vision is based on a growing consensus that:

- (1) Environmental conditions and the current water conveyance configuration of the Delta are not sustainable for environmental and economic purposes
- (2) Current land and water uses and related services dependent on the Delta are not sustainable based on current management practices and regulatory requirements
- (3) Major “drivers of change” (e.g., seismic events, land subsidence, sea level rise, regional climate change, and urbanization) will impact the Delta in the future
- (4) The current fragmented and complex governance systems within the Delta are not conducive to effective management of the Delta in light of these threats
- (5) Failure to address these challenges and threats could result in significant environmental and economic consequences

The Task Force formulated seven goals. In addition to addressing legal actions and establishing a new governing structure, the goals recognize that enhancing the Delta's cultural, recreational, and agricultural values, and promoting statewide water conservation, would lead to improved water conveyance, storage, and operations; reduced risk; and ultimately, restoration of the ecosystem.

#### **4.8.3.3 State Water Resources Control Board and the California Environmental Protection Agency Draft Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem**

The SWRCB and CalEPA Draft Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem report (was produced in accordance with Water Code §85086. Water Code §85086, contained in the Delta Reform Act, was enacted as part of the comprehensive package of water legislation adopted in November 2009. Water Code §85086 requires the SWRCB to use the best available scientific information and a public process to develop new flow criteria for the Delta ecosystem to protect aquatic resources in the Delta. The purpose of the flow criteria is to inform planning decisions for the Delta Plan and the Bay Delta Conservation Plan. None of the determinations in the SWRCB Delta Flow Criteria Report have regulatory adjudicatory effect. The report includes flow criteria recommendations for the Sacramento River.

## **4.9 Chapter 13. Botanical Resources**

### **4.9.1 Federal Plans, Policies, and Regulations**

The following federal regulations are applicable to botanical resources, but are discussed in other sections of this chapter, as indicated in parentheses:

- National Environmental Policy Act (General)
- Federal Endangered Species Act (Fluvial Geomorphology and Riparian Habitat)

#### **4.9.1.1 Executive Order 11312: Invasive Species**

EO 11312 directs all federal agencies to prevent and control introductions of invasive nonnative species in a cost-effective and environmentally sound manner to minimize their economic, ecological, and human health impacts. EO 11312 established a national Invasive Species Council made up of federal agencies and departments and a supporting Invasive Species Advisory Committee composed of State, local, and private entities. The Invasive Species Council and Advisory Committee oversee and facilitate implementation of the EO, including preparation of a National Invasive Species Management Plan.

### **4.9.2 State Plans, Policies, and Regulations**

The following State regulations are applicable to botanical resources, but are discussed in other sections of this chapter, as indicated in parentheses:

- California Environmental Quality Act (General)
- California Endangered Species Act (Fluvial Geomorphology and Riparian Habitat)

#### **4.9.2.1 California Native Plant Society List**

According to CDFG, species on California Native Plant Society (CNPS) Lists 1 or 2 must be treated as equivalent to State-listed species if they meet the definition of rare or endangered pursuant to CEQA §15380. CNPS states that “all of the plants constituting List 1B and List 2 meet the definitions of Sec.



1901, Chapter 10 (National Plant Protection Act) or Secs. 2062 and 2067 (CESA) of the CDFG Code, and are eligible for State listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA”.

#### **4.9.2.2 Natural Communities Conservation Planning Act**

Sections 2800 to 2835 of the CDFG Code detail the State’s policies on the conservation, protection, restoration, and enhancement of the State’s natural resources and ecosystems. The intent of the legislation is to provide for conservation planning as an officially recognized policy that can be used as a tool to eliminate conflicts between the protection of the State’s natural resources and the need for growth and development. In addition, the legislation promotes conservation planning as a means of coordination and cooperation among private interests, agencies, and landowners, and as a mechanism for multispecies and multi-habitat management and conservation.

#### **4.9.2.3 California Department of Fish and Game Code Sections 1900 to 1913 – Native Plant Protection Act**

The purpose of this regulation is to preserve, protect, and enhance endangered or rare native plants. The regulation states that CDFG shall establish criteria for determining if a native plant is endangered or rare through botanical research and field investigations, and the Fish and Game Commission may then designate endangered and rare plants. Designated endangered or rare plants shall not be taken or possessed.

#### **4.9.2.4 Sections of the California Fish and Game Code Pertaining to Invasive and Noxious Plant Species**

At least five code sections and their associated regulations address or relate to invasive and noxious plant species. These include CDFG Code Sections 2080 to 2089, 2118, 2270 to 2272, 2300, 6400 to 6403, 15000 et seq. The intent of these code sections is to regulate the importation and transportation of live wild animals and plants; restrict the placement of live aquatic animals or plants in State waters; and regulate the operation of aquaculture industries.

### **4.9.3 Regional and Local Plans, Policies, and Regulations**

The following local regulations are applicable to botanical resources, but are discussed in other sections of this chapter, as indicated in parentheses:

- Glenn County General Plan (General)
- Colusa County General Plan (General)

#### **4.9.3.1 Colusa County Voluntary Oak Woodlands Management Plan**

The purpose of Colusa County’s Oak Woodland Management Plan is to provide a consistent policy for conservation and use of oak woodlands throughout the county. The document is expected to provide direction to landowners, the Colusa County Planning Department, and developers.

## 4.10 Chapter 14: Terrestrial Biological Resources

### 4.10.1 Federal Plans, Policies, and Regulations

The following federal regulations are applicable to terrestrial biological resources, but are discussed in other sections of this chapter, as indicated in parentheses:

- National Environmental Policy Act (General)
- Central Valley Project Improvement Act (Surface Water Resources)
- Federal Endangered Species Act (Fluvial Geomorphology and Riparian Habitat)
- Fish and Wildlife Coordination Act (Aquatic Biological Resources)
- Executive Order 11312: Invasive Species (Botanical Resources)

#### 4.10.1.1 *Migratory Bird Treaty Act*

The Migratory Bird Treaty Act prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the U.S. Department of the Interior (DOI).

#### 4.10.1.2 *Bald and Golden Eagle Protection Act*

The Bald and Golden Eagle Protection Act (Eagle Act, as amended) prohibits the take of bald and golden eagles including individuals, parts, nests, eggs, nest trees, and nest territories.

### 4.10.2 State Plans, Policies, and Regulations

The following State regulations are applicable to terrestrial biological resources, but are discussed in other sections of this chapter, as indicated in parentheses:

- California Environmental Quality Act (General)
- California Endangered Species Act (Fluvial Geomorphology and Riparian Habitat)

#### 4.10.2.1 *California Department of Fish and Game Code 3503*

This CDFG Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.

#### 4.10.2.2 *California Department of Fish and Game Code 3503.5*

This CDFG Code states it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.

#### 4.10.2.3 *California Department of Fish and Game Code 3511*

(a) (1) Except as provided in Section 2081.7 or 2835, fully protected birds or parts thereof may not be taken or possessed at any time. The following are fully protected birds:

- (1) American peregrine falcon (*Falco peregrinus anatum*).
- (2) Brown pelican (*Pelicanus occidentalis*).
- (3) California black rail (*Laterallus jamaicensis coturniculus*).
- (4) California clapper rail (*Rallus longirostris obsoletus*).
- (5) California condor (*Gymnogyps californianus*).

- (6) California least tern (*Sterna albifrons browni*).
- (7) Golden eagle (*Aquila chrysaetos*).
- (8) Greater sandhill crane (*Grus canadensis tabida*).
- (9) Light-footed clapper rail (*Rallus longirostris levipes*).
- (10) Southern bald eagle (*Haliaeetus leucocephalus leucocephalus*).
- (11) Trumpeter swan (*Cygnus buccinator*).
- (12) White-tailed kite (*Elanus leucurus*).
- (13) Yuma clapper rail (*Rallus longirostris yumanensis*).

#### **4.10.2.4 California Department of Fish and Game Code 4700**

(a) (1) Except as provided in Section 2081.7 or 2835, fully protected mammals or parts thereof may not be taken or possessed at any time. The following are fully protected mammals:

- (1) Morro Bay kangaroo rat (*Dipodomys heermanni morroensis*).
- (2) Bighorn sheep (*Ovis canadensis*), except Nelson bighorn sheep (subspecies *Ovis canadensis nelsoni*) as provided by subdivision (b) of Section 4902.
- (3) Northern elephant seal (*Mirounga angustirostris*).
- (4) Guadalupe fur seal (*Arctocephalus townsendi*).
- (5) Ring-tailed cat (*Bassariscus astutus*).
- (6) Pacific right whale (*Eubalaena sieboldi*).
- (7) Salt-marsh harvest mouse (*Reithrodontomys raviventris*).
- (8) Southern sea otter (*Enhydra lutris nereis*).
- (9) Wolverine (*Gulo luscus*).

#### **4.10.2.5 California Department of Fish and Game Code 5050**

(a) (1) Except as provided in Section 2081.7 or 2835, fully protected reptiles and amphibians or parts thereof may not be taken or possessed at any time. The following are fully protected reptiles and amphibians:

- (1) Blunt-nosed leopard lizard (*Crotaphytus wislizenii silus*).
- (2) San Francisco garter snake (*Thamnophis sirtalis tetrataenia*).
- (3) Santa Cruz long-toed salamander (*Ambystoma macrodactylum croceum*).
- (4) Limestone salamander (*Hydromantes brunus*).
- (5) Black toad (*Bufo boreas exsul*).

### **4.10.3 Regional and Local Plans, Policies, and Regulations**

The following local regulations are applicable to terrestrial biological resources, but are discussed in other sections of this chapter, as indicated in parentheses:

- Colusa County General Plan (General)
- Glenn County General Plan (General)
- Colusa County Voluntary Oak Woodlands Management Plan (Botanical Resources)

## 4.11 Chapter 15: Wetlands and Other Waters of the U.S.

### 4.11.1 Federal Plans, Policies, and Regulations

The following federal regulations are applicable to wetlands and other waters of the U.S., but are discussed in other sections of this chapter, as indicated in parentheses:

- Clean Water Act Sections 401 and 404 (Surface Water Resources, Surface Water Quality)
- Rivers and Harbors Act of 1899 (Surface Water Quality)
- Natural Communities Conservation Planning Act (Botanical Resources)

#### 4.11.1.1 Executive Order 11990, Protection of Wetlands

EO 11990 requires each federal agency to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands which are under their jurisdiction. Further, the agencies are directed to avoid undertaking or providing assistance for any new construction located in wetlands unless the head of the agency finds that there is no practicable alternative to such construction and that the proposed action includes all practicable measures to minimize harm to the affected wetlands.

#### 4.11.1.2 No Net Loss of Wetlands Policy

“No net loss” is the United States government’s overall policy goal regarding wetlands preservation. The goal of the policy is to balance wetland loss due to economic development with wetlands reclamation, mitigation, and restorations efforts, so that the total acreage of wetlands in the country does not decrease, but remains constant or increases. No net loss as a goal for wetland’s policy was recommended at the National Wetlands Policy Forum in 1987 and was first adopted by President George H.W. Bush administration in 1989. The policy, which represented compromise between development and conservation, was grounded on the needs to protect the wetlands by creating and restoring the wetlands.

#### 4.11.1.3 Comprehensive Conservation Plans for National Wildlife Refuges

USFWS is directed to develop Comprehensive Conservation Plans (CCPs) to guide the management and resource use for each refuge of the National Wildlife Refuge System under requirements of the National Wildlife Refuge Improvement Act of 1997. Refuge planning policy also directs the process and development of CCPs. A CCP provides a description of the desired future conditions and long-range guidance necessary for meeting refuge purposes. It also guides management decisions and sets forth strategies for achieving refuge goals and objectives within a 15-year time frame.

### 4.11.2 State Plans, Policies, and Regulations

The following State regulations are applicable to wetlands and waters of the U.S., but are discussed in other sections of this chapter, as indicated in parentheses:

- Porter-Cologne Water Quality Control Act (Surface Water Resources)
- Suisun Marsh Preservation Agreement (Surface Water Resources)
- Suisun Marsh Protection Act and Suisun Marsh Protection Plan (Surface Water Resources)
- Delta Vision Strategic Plan (Aquatic Biological Resources)
- Delta Protection Act of 1992 (Surface Water Resources)

#### **4.11.2.1 California Wetlands Conservation Policy**

The goal of the California Wetlands Conservation Policy, adopted in 1993, is to ensure no overall net loss, and achieve a long-term net gain in the quantity, quality, and permanence of wetlands acreage and values in California, in a manner that fosters creativity, stewardship, and respect for private property.

#### **4.11.3 Regional and Local Plans, Policies, and Regulations**

##### **4.11.3.1 Yolo Bypass Wildlife Area Land Management Plan**

The Yolo Bypass Wildlife Area Land Management Plan was finalized in June 2008. The management plan is a general policy guide for the CDFG to manage the Yolo Bypass Wildlife Area. It is intended to contribute to habitat management that uses natural processes to create a sustainable system over the long term. The policies are based on an ecosystem approach to habitat management consistent with the principles of CALFED's Ecosystem Restoration Program, as implemented by the USFWS, NMFS, and CDFG.

### **4.12 Chapter 16: Geology, Minerals, Soils, and Paleontology**

#### **4.12.1 Federal Plans, Policies, and Regulations**

The following federal regulations are applicable to geology, minerals, soils, and/or paleontology, but are discussed in other sections of this chapter, as indicated in parentheses:

- Clean Water Act Section 402, National Pollution Discharge Elimination System Permits (Surface Water Quality)
- National Pollution Discharge Elimination System General Permit for Stormwater Discharges from Construction Sites (Surface Water Quality)

##### **4.12.1.1 Antiquities Act of 1906**

The Antiquities Act authorizes the President of the United States to designate National Monuments and provides criminal penalties (fines and/or imprisonment) for the unauthorized excavation, injury, or destruction of prehistoric or historic ruins and objects of antiquity located on federal land. This act applies to the public lands administered by federal agencies.

##### **4.12.1.2 Archaeological Resources Protection Act of 1979 (16 USC 470aa to mm)**

The Archaeological Resources Protection Act (ARPA) amends the Antiquities Act, sets a broad policy that archaeological resources are important to the nation and should be protected, and requires special permits before the excavation or removal of archaeological resources from federally managed lands and Indian lands. This act is applicable to public lands within the project boundary that are managed by federal agencies. ARPA also provides for maintaining the confidentiality of information on the nature and location of archaeological sites.

##### **4.12.1.3 Omnibus Public Land Management Act of 2009**

On March 31, 2009, President Obama signed into law the Omnibus Public Land Management Act (OPLMA) of 2009. Title 6, Subtitle D of the OPLMA, Paleontological Resources Preservation, requires the secretaries of the DOI (exclusive of Indian trust lands) and the U.S. Department of Agriculture (USDA) (insofar as U.S. Forest System lands are concerned) to "... manage and protect paleontological



resources on Federal land using scientific principals and expertise... [and] develop appropriate plans for inventory, monitoring, and the scientific and educational use of paleontological resources ...” The OPLMA further excludes casual collection from restrictions under the law, and then describes the requirements for permitting collection on federal lands, stipulations regarding the use of paleontological resources in education, continued federal ownership of recovered paleontological resources, and standards for acceptable repositories of collected specimens and associated data. The OPLMA also provides for criminal and civil penalties for unauthorized removal of paleontological resources from federal land, and for rewards for reporting the theft of fossils.

#### **4.12.2 State Plans, Policies, and Regulations**

The following State regulations are applicable to geology, minerals, soils, and/or paleontology, but are discussed in other sections of this chapter, as indicated in parentheses:

- California Environmental Quality Act (General)
- Porter-Cologne Water Quality Control Act (Surface Water Resources)
- California Department of Fish and Game Code 1602 (Aquatic Biological Resources)
- California Water Code, Division 3: Dams and Reservoirs (Flood Control and Management)

##### **4.12.2.1 Surface Mining and Reclamation Act of 1975 (Public Resources Code 2762 and 2714)**

Mining activities are regulated in the State of California by the Surface Mining and Reclamation Act (SMARA) of 1975. This law’s purpose is to create and maintain an effective and comprehensive surface mining and reclamation policy with regulation of surface mining operations to ensure that adverse environmental effects are prevented or minimized and that mined lands are reclaimed to a usable condition that is readily adaptable for alternative land uses. Production and conservation of minerals are encouraged, and consideration is given to values relating to recreation, wildlife, range and forage, and aesthetic enjoyment, while eliminating residual hazards to public health and safety. These goals are achieved through land use planning by allowing jurisdictions to balance the economic benefits of resource extraction with the need to provide other land uses.

It is also the intent of this process, through the adoption of local mineral resource management policies, that significant mineral resources be considered in future local land-use planning decisions. Public Resources Code Section 2762 directs that if a use is proposed that might threaten the potential recovery of minerals from an area that has been classified MRZ-2 (areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists), the county (or city) must specify its reasons for permitting use, provide public notice of those reasons, and forward a copy of its statement of reasons to the State Geologist and the State Mining and Geology Board.

##### **4.12.2.2 Seismic Hazards Mapping Act**

The Seismic Hazards Mapping Act of 1990 was passed following the Loma Prieta earthquake to reduce threats to public health and safety by identifying and mapping known seismic hazard zones in California. The act directs the California Geological Survey of the Department of Conservation to identify and map

areas prone to earthquake hazards of liquefaction<sup>25</sup>, earthquake-induced landslides, and amplified ground shaking. The purpose of the maps is to assist cities and counties in fulfilling their responsibilities for protecting public health and safety.

#### **4.12.2.3 Asbestos Airborne Toxic Control Measure for Surfacing Applications (amended 2000)**

This California Air Resources Board (ARB) regulation serves to control the sale, use, or transport of materials derived from ultramafic (high in magnesium and iron) or serpentine<sup>26</sup> sources with the goal of reducing airborne emissions of asbestos found in these materials. The regulation does not include aggregate materials derived from alluvial sources.

#### **4.12.2.4 Asbestos Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations 2002**

This ARB regulation serves to limit ground disturbance in areas containing ultramafic rock or areas containing naturally occurring asbestos or serpentine.

#### **4.12.2.5 Regulatory Design Codes for Buildings, Highways, and Other Structures**

State and federal standards for minimum design regulate the construction of any buildings, highways, and other structures, and include the following:

- American Association of State Highway and Transportation Officials (AASHTO) Guide Specifications for Load and Resistance Factor Design (LRFD) Seismic Bridge Design, 1st Edition, 2009
- American Railway Engineering and Maintenance-of-Way Association Manual for Railway Engineering, Volume 2, Chapter 9, Seismic Design for Railway Structures, 2008
- American Society of Civil Engineers Minimum Design Loads for Buildings and Other Structures, ASCE-7-05, 2005
- California Amendments to AASHTO LRFD Bridge Design Specifications, Fourth Edition, 2008
- California Building Code (CBC), 2013 (CCR, Title 24, Part 2)
- Caltrans Seismic Design Criteria, latest edition
- DWR DSOD Guidelines for Use of the Consequence-Hazard Matrix and Selection of Ground Motion Parameters, 2002
- DWR Interim Levee Design Criteria for Urban and Urbanizing Area State-Federal Project Levees, 2009
- Federal Highway Administration (FHWA) Seismic Retrofitting Manual for Highways Structures, Parts 1 and 2, 2006
- USACE (Corps, CESPK-ED-G), Geotechnical Levee Practice, SOP EDG-03, 2004
- USACE Design and Construction of Levees, EM 1110-2-1913, 2000

<sup>25</sup> Liquefaction- the process by which saturated, unconsolidated sediments are transformed into a substance that acts like a liquid. Earthquakes can cause soil liquefaction where loosely packed, water-logged sediments come loose from the intense shaking of the earthquake.

<sup>26</sup> Serpentine- a mineral or rock consisting essentially of a hydrous magnesium silicate usually having a dull green color and often a mottled appearance

- USACE Engineering and Design, Earthquake Design and Evaluation for Civil Works Projects, ER 1110-2-1806, 1995
- USACE Engineering and Design – Earthquake Design and Evaluation of Concrete Hydraulic Structures, EM 1110-2-6053, 2007
- USACE Engineering and Design – General Design and Construction Considerations for Earth and Rock-Fill Dams, EM 1110-2-2300, 2004
- USACE Engineering and Design – Response Spectra and Seismic Analysis for Concrete Hydraulic Structures, EM 1110-2-6050, 1999
- USACE Engineering and Design – Stability Analysis of Concrete Structures, EM 1110-2-2100, 2005
- USACE Engineering and Design – Structural Design and Evaluation of Outlet Works, EM 1110-2-2400, 2003
- USACE Engineering and Design – Time-History Dynamic Analysis of Concrete Hydraulic Structure, EM 1110-2-6051, 2003
- USACE Slope Stability, EM 1110-2-1902, 2003
- Reclamation. ACER Technical Memo No. 3. Criteria and Guidelines for Evacuating Storage Reservoirs and Sizing Low-Level Outlet Works, 1990.
- DOI and USGS Climate Change and Water Resources Management: A federal Perspective, Circular 1331

These standards establish minimum design criteria and construction requirements, including design of concrete and steel structures, levees, tunnels, pipelines, buildings, pumping stations, excavation and shoring, grading, and foundations.

#### **4.12.2.6 Nonpoint Source Implementation and Enforcement Policy**

The State's Nonpoint Source Implementation and Enforcement Policy describes how its nonpoint source plan is to be implemented and enforced, in compliance with Section 319 of the CWA (the Nonpoint Source Management Program), Coastal Zone Act Reauthorization Amendments, and the Porter-Cologne Act. In contrast to point-source pollution that enters water bodies from discrete locations, nonpoint source pollution enters water bodies from diffuse sources, such as land runoff, seepage, or hydrologic modification. Nonpoint source pollution is controlled through implementation of management measures such as operational controls. The nonpoint source pollution program contains recommended management measures for developing areas and construction sites, as well as wetland and riparian areas. Requirements for soil erosion and sediment controls to prevent nonpoint source pollution discharges to waterways may be incorporated into permits.

#### **4.12.2.7 California Public Resources Code Chapter 1.7 Archaeological, Paleontological, and Historical Sites Section 5097.5)**

- (a) No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands. Violation of this section is a misdemeanor.

- (b) As used in this section, “public lands” means lands owned by, or under the jurisdiction of, the State, or any city, county, district, authority, or public corporation, or any agency thereof.

### **4.12.3 Regional and Local Plans, Policies, and Regulations**

The following local regulations are applicable to geology, minerals, soils, and/or paleontology, but are discussed in other sections of this chapter, as indicated in parentheses:

- Glenn County General Plan (General)
- Colusa County General Plan (General)

## **4.13 Chapter 17. Faults and Seismicity**

### **4.13.1 Federal Plans, Policies, and Regulations**

#### **4.13.1.1 National Earthquake Hazards Reduction Program Act of 2004**

This act established the National Earthquake Hazards Reduction Program which was designed to develop and promote effective measures for earthquake hazard reductions, serve as a clearinghouse for data and standards related to earthquake effects on communities and structures, and to develop, operate and maintain the Advanced National Seismic Research and Monitoring System.

### **4.13.2 State Plans, Policies, and Regulations**

The following State regulations are applicable to faults and seismicity, but are discussed in other sections of this chapter, as indicated in parentheses:

- California Water Code, Division 3 Dams and Reservoirs (Flood Control and Management)
- Seismic Hazards Mapping Act of 1990 (Geology, Minerals, Soils, and Paleontology)

#### **4.13.2.1 Alquist-Priolo Earthquake Fault Zoning Act of 1972**

This act requires the State Geologist to provide maps of Earthquake Fault Zones to affected city, county, and State agencies to avoid development of structures for human occupancy across the trace of active faults. The act also facilitates the seismic retrofitting of existing buildings, including historic buildings, against ground shaking.

#### **4.13.2.2 California Division of Mines and Geology Special Publication No. 42, Fault-Rupture Hazard Zones in California, 2007**

Pursuant to the Alquist-Priolo Earthquake Fault Zoning Act, this report summarizes the various responsibilities under the Act, details the actions taken by the State Geologist and his staff to implement the Act, and provides earthquake fault zone maps.

#### **4.13.2.3 California Division of Mines and Geology Special Publication No. 117A, Guidelines for Evaluating and Mitigating Seismic Hazards in California, 2008**

Pursuant to the Seismic Hazards Mapping Act, this report presents guidelines for evaluating seismic hazards other than surface fault-rupture, and recommends mitigation measures as required by Public Resources Code Section 2695(a).

#### **4.13.2.4 California Code of Regulations, Title 23 Waters, Division 2 DWR, Chapter 1 Dams and Reservoirs, Article 5**

This section of the CCR states that, pursuant to Section 6056 of the Water Code, the DWR shall retain a board of three consultants to report to the Director on the safety of dams owned by DWR. The consulting board shall make independent findings with regard to conditions which may affect the safety of the dam and reservoir as specified in Section 6081 of the Water Code, and the board shall also make independent findings that the dam is safe to impound water, as specified in Section 6355 of the Water Code.

This section also states that DWR shall retain a consulting board (1) to review the adequacy of the design of a dam and reservoir DWR proposes to construct, or (2) to review the safety of the completed construction and the terms and conditions to be included in a certificate of approval for any dam owned by DWR as issued, renewed or modified, no later than six months following any such action. Where a board is retained to review the adequacy of the design of a dam and reservoir, it shall report its findings to the Director prior to the approval of an application to construct or enlarge the dam.

In addition, DWR shall retain a review board at least once every five years to review the operational performance of department owned dams. The Federal Power Commission's five year independent review may be substituted if it is comparable to the review required by this article.

#### **4.13.3 Regional and Local Plans, Policies, and Regulations**

The following local regulations are applicable to faults and seismicity, but are discussed in other sections of this chapter, as indicated in parentheses:

- Glenn County General Plan (General)
- Colusa County General Plan (General)

### **4.14 Chapter 18: Cultural Resources**

#### **4.14.1 Federal Plans, Policies, and Regulations**

The following federal regulations are applicable to cultural resources, but are discussed in other sections of this chapter, as indicated in parentheses:

- Antiquities Act of 1906 (Geology, Soils, Minerals, and Paleontology)
- Archaeological Resources Protection Act (Geology, Soils, Minerals, and Paleontology)

##### **4.14.1.1 National Historic Preservation Act of 1966**

Section 106 of the National Historic Preservation Act (NHPA) of 1966 and its implementing regulations require federal agencies to consider the effects of their undertakings, or those they fund or permit, on properties that may be eligible for listing, or that are listed in the National Register of Historic Places (NRHP). The 36 CFR Part 60.4 regulations describe the criteria to evaluate cultural resources for inclusion in the NRHP. Cultural resources can be significant on the national, State, or local level. Such resources are required to retain integrity and must exhibit an association with broad patterns of our history, be associated with an important person, embody a distinctive characteristic, or yield information that is historically significant.



The 36 CFR Part 800 regulations, implementing Section 106, call for considerable consultation with the State Historic Preservation Officer, Indian tribes, and interested members of the public throughout the process. The four principal steps are as follows:

- Initiate the Section 106 process
- Identify historic properties, resources eligible for inclusion in the NRHP
- Assess the effects of the undertaking to historic properties in the Area
- Resolve adverse effects

#### **4.14.1.2 National Register of Historic Places**

The NRHP is the official list of the Nation's historic places worthy of preservation. To be eligible for the register, the property must meet criteria related to age, integrity, and significance. All nominations to the register are reviewed by the State Office of Historic Preservation.

The NRHP is maintained by the Secretary of the Interior and includes districts, sites, buildings, structures, architecture, archaeology, engineering, culture, and objects of significance in American history. A property may be listed in the NRHP if it meets criteria for evaluation defined in 36 CFR 60.4:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- (A) That are associated with events that have made a significant contribution to the broad patterns of our history; or
- (B) That are associated with the lives of persons significant in our past; or
- (C) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess an artistic value, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (D) That have yielded, or may be likely to yield, information important to prehistory or history.

#### **4.14.1.3 Protection of Historic Properties (USC 36 CFR 800)**

This code section requires federal agencies to consider the effects of their undertakings on historic properties. Consultation early in the planning process allows identification of properties potentially affected by the undertaking and the development of measures to avoid, minimize, and mitigate adverse effects on historic properties.

#### **4.14.1.4 Native American Graves Protection and Repatriation Act**

The Native American Graves Protection and Repatriation Act (NAGPRA) provides for increased involvement of Native Americans in archaeology and historic preservation. NAGPRA addresses the rights of lineal descendants and Indian tribes to Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony. These parties are to be consulted when such items are inadvertently discovered or intentionally excavated on federal or tribal lands. NAGPRA recognizes Native American "ownership" of these items. The NHPA amendments mandate tribal participation in the Section 106 process. A federal agency must consult with the tribal government or recognized representatives when its activities occur on a reservation and/or as part of an undertaking. Agencies also

must consult with a tribe if an activity will affect a historic property to which the tribe attaches cultural or historic importance. More importantly, tribal historic preservation programs have the same legal status as State historic preservation programs. These stipulations are an acknowledgment that tribal sovereignty extends into the arena of cultural resource management and, therefore, are an extension of the government-to-government relationship between tribes and the federal government. The NHPA amendments also specify that “properties of traditional religious and cultural importance to Native Americans” qualify for inclusion in the NRHP. To a certain extent, this specification addresses the inability of the AIRFA to protect Native American sacred sites. This designation also expands the definition of “cultural resource” to include sites that may lack material remains.

#### **4.14.2 State Plans, Policies, and Regulations**

The following State regulations are applicable to cultural resources, but are discussed in other sections of this chapter, as indicated in parentheses:

- California Environmental Quality Act (General)
- California Public Resources Code Chapter 1.7 Archaeological, Paleontological, and Historical Sites Section 5097.5 (Geology, Soils, Minerals, and Paleontology)

##### **4.14.2.1 California Register of Historical Resources**

The California Register of Historical Resources (CRHR) includes resources that are listed in or formally determined eligible for listing in the NRHP, as well as some California State Landmarks and Points of Historical Interest. Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be significant resources for purposes of CEQA, unless a preponderance of evidence indicates otherwise. The eligibility criteria for listing in the CRHR are similar to those for NRHP listing, but focus on the importance of the resources to California history and heritage. A cultural resource may be eligible for listing in the CRHR if:

1. It is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or
2. It is associated with the lives of persons important to local, California, or national history; or
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

##### **4.14.2.2 California Native American Historic Resource Protection Act**

The California Native American Historic Resource Protection Act establishes the Native American Heritage Commission (NAHC) and its responsibilities and requires cooperation of State and local agencies in carrying out its duties with respect to Native American resources. The NAHC identifies and catalogs places of special religious or social significance to Native Americans and known graves and cemeteries of Native Americans on private lands, and performs other duties regarding the preservation and accessibility of sacred sites and burials and the disposition of Native American human remains and burial items. In the event of the discovery of human remains of Native American origin, the NAHC is

responsible for the identification of the person or persons it believes to be the most likely descendant from the deceased Native American.

#### **4.14.2.3 California Public Resources Code Section 5024.1**

The Code Section requires State agencies to formulate policies to preserve and maintain State-owned historical resources under its jurisdiction. This includes those resources included in the NRHP as well as those resources potentially eligible for the register.

#### **4.14.2.4 California Public Resources Code Section 5097.9-5097.991**

These code sections provide protection to the exercise of Native American religion including protection of cemeteries, places of worship, religious or ceremonial sites, or sacred shrines on public property. City and County lands less than 100 acres are excluded from the provisions of the code section. The code section authorizes the establishment of a Native American Heritage Commission with the responsibility to identify and make recommendations regarding Native American sacred sites.

#### **4.14.2.5 California Health and Safety Code Section 7050.5: Disturbance of Human Remains**

Section 7050.5 of the California Health and Safety Code includes the following requirements:

Every person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor.

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.

If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact the NAHC by telephone within 24 hours.

#### **4.14.2.6 California Health and Safety Code Sections 8010 to 8011: California Native American Graves Protection and Repatriation Act**

Sections 8010–8011 of the California Health and Safety Code establish a State repatriation policy that is consistent with and facilitates implementation of the federal NAGPRA. The policy requires that all California Indian human remains and cultural items be treated with dignity and respect and encourages voluntary disclosure and return of remains and cultural items by publicly funded agencies and museums in California. The policy provides for mechanisms to aid California Indian tribes, including non-federally recognized tribes, in filing repatriation claims and getting responses to those claims.

### **4.14.3 Regional and Local Plans, Policies, and Regulations**

The following local regulations are applicable to cultural resources, but are discussed in other sections of this chapter, as indicated in parentheses:

- Glenn County General Plan (General)
- Colusa County General Plan (General)

## **4.15 Chapter 19: Indian Trust Assets**

Indian Trust Assets (ITAs) are legal interests in property held in trust by the United States for Indian Tribes or individuals. The Secretary of the Interior, acting as the trustee, holds many assets in trust. Examples of objects that may be trust assets are lands, minerals, hunting and fishing rights, and water rights. Although most ITAs are on reservations, they may also be found off of reservations. The United States has an Indian trust responsibility to protect and maintain rights reserved by or granted to Indian Tribes or Indian individuals by treaties, statutes, and executive orders. These are sometimes further interpreted through court decisions and regulations.

## **4.16 Chapter 20: Land Use**

### **4.16.1 Federal Plans, Policies, and Regulations**

#### **4.16.1.1 Farmland Protection Policy Act**

The Farmland Protection Policy Act of 1981 (FPPA) is a federal regulation that is intended to minimize the impact of federal programs with respect to the conversion of farmland to nonagricultural uses. The FPPA ensures that, to the extent possible, federal programs are administered to be compatible with State, local, and private programs and policies to protect farmland. It is administered by the USDA, Natural Resources Conservation Service (NRCS).

#### **4.16.1.2 Wetlands Reserve Program**

The NRCS administers the Wetlands Reserve Program (WRP). The WRP was established by Congress in the 1990 Farm Bill and has been reauthorized in the 1996, 2002, and 2008 Farm Bills. There have been WRP easements in California since 1992. The WRP is a voluntary program that offers landowners the opportunity to protect, restore, and enhance wetlands on their property. Landowners who are enrolled in the program retain the title to the land and the right to control access and recreational use of that land.

The WRP offers three options:

- Permanent Easement: this is a conservation easement in perpetuity. The USDA pays 100 percent of the easement value and up to 100 percent of the restoration costs.
- 30-Year Easement: this easement expires after 30 years. USDA pays up to 75 percent of the easement value and up to 75 percent of the restoration costs.
- Restoration Cost-Share Agreement: this is a 10-year agreement to restore or enhance the wetland functions and values without placing an easement on the enrolled acres. USDA pays up to 75 percent of the restoration costs.

Enrollment of land in the WRP limits the activities that can occur on that land, including digging, dredging, filling, leveling, and the installation of structures on, under, or over the easement area (except if those structures are for undeveloped recreational use).

#### 4.16.2 State Plans, Policies, and Regulations

##### 4.16.2.1 Important Farmland Inventory System and Farmland Mapping and Monitoring Program

The California Department of Conservation, Office of Land Conservation, maintains a statewide inventory of farmlands. These lands are mapped by the Division of Land Resource Protection as part of the Farmland Mapping and Monitoring Program. Lands are classified using a system that combines technical soil ratings and current land use into the following categories: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Grazing Land, Urban and Built-up Land, Other Land, and Water. The definitions of these classifications are provided below.

##### Land Use Categories

- **Prime Farmland:** Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- **Farmland of Statewide Importance:** Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- **Unique Farmland:** Farmland of lesser quality soils used for the production of the State's leading agricultural crops. This land is usually irrigated, but may include nonirrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.
- **Farmland of Local Importance:** Land of importance to the local agricultural economy, as determined by each county's board of supervisors and a local advisory committee. The county-specific Board of Supervisors has the authority to adopt or recommend changes to this category of farmland.
- **Grazing Land:** Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in Cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities.
- **Urban/Built-Up Land:** Land occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
- **Other Land:** Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and



waterbodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

- **Water:** Perennial water bodies with an extent of at least 40 acres.

#### **4.16.2.2 California Land Conservation Act of 1965 (Williamson Act)**

Preservation of farmland in California is encouraged by the California Land Conservation Act of 1965, more commonly known as the “Williamson Act” (Gov. Code §51250 et seq.). The Williamson Act enables local governments to form contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. A landowner signs a contract with the County in which the land is located, voluntarily restricting land to agricultural and open space uses.

Some open space, defined by Government Code §51201 is generally eligible to be included as a compatible (not primary) use:

- Wildlife habitat areas, designated by the Board or Council in consultation with CDFG
- Some managed wetland areas, tidal submerged areas, and salt evaporation ponds
- Land supporting recreational use and open to the public, in its natural or agricultural state
- Land in scenic highway corridors
- Land enrolled in the federal Conservation Reserve Program or Conservation Reserve Enhancement Program are Open Space Uses

In return, landowners receive substantially reduced property tax assessments; assessments that are based upon generated income (i.e., farming and open space uses) as opposed to potential market value of the property. Local governments received a partial subvention (i.e., subsidy) of foregone property tax revenues from the State via the Open Space Subvention Act of 1972 (Government Code §16140, et seq.) through 2009. These payments have been suspended in more recent years due to revenue shortfalls.

The contract is renewed automatically annually, continuing indefinitely unless the owner or local government files for non-renewal. The minimum initial contract term is 10 years. Pursuant to the non-renewal process, the remaining contract term (nine years in the case of an original term of 10 years) is allowed to lapse, with the contract null and void at the end of the term. Property tax rates gradually increase during the nonrenewal period, until they reach normal (i.e., non-restricted) levels upon termination of the contract.

Pursuant to a set of specifically defined circumstances, a contract may be cancelled by the landowner without completing the process of term nonrenewal (Government Code §51281). Contract cancellation involves a comprehensive review and approval process, and the payment of a fee by the landowner equal to 12.5 percent of the full market value of the property in question. Landowners may petition a County Board of Supervisors or City Council for a Williamson Act contract cancellation. The County or City is required to send a copy of the petition to the Department of Conservation as a separate submittal from any CEQA document.

There are five sections pursuant to the Williamson Act statute that a landowner may petition a Board of Supervisors or City Council for a full or partial cancellation:

- §51282(b) Cancellation is Consistent with the Williamson Act
- §51282(c) Cancellation is in the Public interest
- §51282.3 Cancellation for Specified Alternate Use of the Land

- §51282.5 Cancellation of Land Zoned as Timberland Production
- §51297 Cancellation of Farmland Security Zone Contract

Local activities, such as eminent domain or city annexation, also result in the termination of Williamson Act contracts.

In 1998, the provisions of the Williamson Act were expanded by SB 1182 to strengthen agricultural land preservation incentives. The 1998 changes provided a 35 percent property tax discount to the Williamson Act valuation or Proposition 13 valuation, whichever is lower, and other incentives for farmland owners willing to maintain their land in agricultural land use for 20 years. This latter program creates Farmland Security Zones (also known as the “Super Williamson Act”) within agricultural preserves. Land enrolled under a Farmland Security Zone contract is restricted to agricultural and open spaces uses for a minimum initial contract term of 20 years. Land within a Farmland Security Zone cannot be annexed into cities, and school districts are prohibited from acquiring Farmland Security Zone lands for school facilities. Cancellations of Farmland Security Zone contracts are more expensive and difficult than Williamson Act contracts.

#### **4.16.2.3 California State Planning and Zoning Laws**

California Government Code §65300 et seq. establishes the obligation of cities and counties to adopt and implement General Plans. A city or county General Plan is a comprehensive, long-term, and general document that describes plans for the physical development of a city or county and any land outside its boundaries<sup>27</sup> that, in the city’s or county’s judgment, bears relation to its planning. The General Plan addresses a broad range of topics, including seven mandatory elements: land use, circulation, housing, conservation, open space, noise, and safety. In addressing these and other topics, the General Plan identifies the goals, objectives, policies, principles, standards, and plan proposals that support the city’s or county’s vision for the area. Although the General Plan serves as a blueprint for future development and identifies the overall vision for the applicable planning area, it remains general enough to allow for flexibility in the approach taken to achieve its goals.

California Government Code §65800 et seq. establishes that zoning ordinances, which are laws that define allowable land uses in a specific district, are required to be consistent with the General Plan and any applicable Specific Plan. Zoning codes implement the policies and provisions of the General Plans, identify permitted uses in each zone, regulate the use of land and the general design of structures, and establish minimum regulations and standards for developing land in each jurisdiction. When amendments to a General Plan are made, corresponding changes in the zoning codes may be required to ensure that the land uses designated in the General Plan also would be allowable by the zoning code.

### **4.16.3 Regional and Local Plans, Policies, and Regulations**

#### **4.16.3.1 Tehama County General Plan**

The 2009 Tehama County General Plan includes countywide goals that it uses as a basis for evaluating development proposals and other land-use related activities within Tehama County. The General Plan includes policies and implementation measures that support its goals. The County has also developed

Individual Planning Area policies. The countywide and Central I-5 Corridor Planning Area goals are listed below.

### **Countywide Policies**

- **Goal LU-1:** To plan development within the County in a manner which will provide opportunities for current and future residents to enjoy rural, community oriented living environments that are similar to those currently found in the County. Encourage higher densities, where appropriate, and promote in-fill development to discourage agricultural land conversion demands.
- **Goal LU-2:** To manage development and ensure that an individual(s) action(s) do not adversely impact the health, safety, and welfare of the County's citizens.
- **Goal LU-3:** To promote a development pattern which, whenever possible, maximizes the use of existing infrastructure prior to the construction of new infrastructure. Develop a land use pattern which, to the maximum extent feasible, minimizes the expenditure of public funds for infrastructure construction and maintenance.
- **Goal LU-4:** To designate lands for commercial and industrial development that are appropriate for these purposes and allows opportunities for business and industrial firms. Encourage compact development contiguous to existing urban centers, discourage linear and leapfrog development patterns.
- **Goal LU-5:** To promote a development pattern that will accommodate growth, consistent with other stated goals and for the growth projected for the planning period (2008 to 2028).
- **Goal LU-6:** To govern new development with subdivision, zoning, and other regulations that explicitly define government and private sector responsibilities and expectations with regard to an acceptable balance between public facility and service costs.
- **Goal LU-7:** To accommodate growth in a manner that preserves the predominate rural lifestyle and unique qualities that make the County an attractive place to live and that recognizes that a rural lifestyle does not always necessitate the provision of the full complement of services normally found in urban communities.
- **Goal LU-8:** To develop land use patterns which minimize travel to jobs and services.
- **Goal LU-9:** To accommodate cellular tower facilities while requiring siting provisions that protects the visual quality and character of the County.
- **Goal LU-10:** To promote development patterns that recognize the need to preserve water resources, consistent with other stated goals.

### **Central I-5 Planning Area Policies**

- **Policy CI-5.1:** The development pattern shall recognize the predominantly agricultural land use of the planning area.
- **Policy CI-5.2:** Population growth shall be accommodated primarily in the Los Molinos area by a development pattern transitioning from higher densities in the developed portion of Los Molinos to lower densities moving outward to the surrounding rural areas.

- **Policy CI-5.3:** The rural service center of Proberta and Gerber shall accommodate growth consistent with their agricultural support function and in a manner that preserves the agricultural value of lands surrounding these communities.
- **Policy CI-5.4:** The County recognizes the special district service providers and will work with the districts to incorporate policies during the project review process.
- **Policy CI-5.5:** The future development pattern shall recognize the existing rural residential small lot development in the vicinity of Bryne Avenue, Clement Avenue, and the Sacramento River.

### **Tehama County General Plan Land Use and Zoning Designations**

The intent of the General Industrial land use classification is to provide for industrial land uses, including light and heavy manufacturing, industrial parks, support wholesale energy production, related office uses, and industrial uses of similar character. This designation allows for non-industrial firms that provide materials and services related to industrial uses. Additional non-industrial uses may be permitted on an interim basis with conditions that provide for reversion to industrial uses. Examples of uses include: light to heavy manufacturing, fabrication, storage and warehousing, processing of goods and resources, energy facilities, equipment sales and storage yards, business and office parks and other such uses, which because of their operations, may create noise, light or glare, dust, or odor that are not compatible with residential or service and retail commercial uses. Non-accessory residential uses shall be strongly discouraged.

The Tehama County zoning designation that is compatible with the General Industrial land use designation is the General Industrial District (M-2). Chapter 17-36 – M-2 General Industrial District, of the Tehama County, California, Code of Ordinances, Title 17-Zoning, indicates that the purpose of the M-2 General Industrial District classification is to provide opportunities for heavy industrial land uses and support facilities. This District is consistent with the General Industry category of the Development Pattern and Community Organization Element of the County General Plan.

Uses permitted in an M-2 District shall be as follows:

- Uses permitted in the M-1 District<sup>28</sup>, except that dwellings, mobile homes, as defined in this title, and hotels may be permitted only upon the securing of a use permit
- The following specific uses, which shall be permitted only in M-2 Districts:
  - Wholesale lumber yards, lumber bills
  - Pottery kilns and ceramic works of heavy industrial types
  - Concrete batching plants
  - Blacksmith shops, casting foundries

<sup>28</sup> Uses permitted in the M-1 District include (A) uses permitted in C-3 District (i.e., General Commercial District classified facilities) except that dwellings, mobile homes, recreational vehicle parks, mobile home parks, and hotels may be permitted only upon the securing of a use permit; (B) The following uses of land and buildings, which shall be permitted in M-1 Districts: (1) Assembly and storage of goods, materials, liquids and flammable or explosive matter or materials which create dust, odor or fumes, including the following similar uses: (a) Wholesale and storage warehouses; (b) Feedyards and fuel yards; (2) Manufacturing, processing, fabricating, refining, repairing, packaging or treatment of goods, material or produce by electric power, oil or gas, except operations involving fish fats and oils, bones and meat products, or similar substances commonly recognized as creating offensive conditions in the handling thereof, including the following and similar uses: (a) Dyeing and dry-cleaning plants, (b) Rug cleaning plants, (c) Laundries, (d) Veterinary hospitals, (e) Construction and material yards, except gravel, rock and cement material yards, (f) Retail lumber yards; (C) The following when conducted within a building or enclosed within a solid wall or fence of a type approved by the planning commission and not less than six feet in height: (1) Body and fender repair shops, auto painting shops, (2) Cooperage and bottling works, (3) Sheet metal shops, welding shops, (4) Truck terminals; (D) Living quarters when accessory to the principal permitted use; (E) Mixed-use buildings.

- The following when enclosed with a solid wall or fence not less than six feet in height and of a type approved by the Planning Commission:
  - Building material storage yard, contractors storage yard
  - Junkyard
- Uses requiring Use Permits in an M-2 District shall be as follows: lawful uses not otherwise provided for in this chapter and not found to be similar to uses listed herein.

#### **4.16.3.2 Glenn County General Plan**

The 1993 Glenn County General Plan includes the following countywide goals that it uses as a basis for evaluating development proposals and other land-use related activities within Glenn County. The General Plan includes policies and implementation measures that support its goals. Provided below are the goals and policies that reflect Glenn County's approach to managing land use and agricultural land and timberland preservation.

### **Natural Resources**

#### *Agriculture/Soils: Goals and Policies*

#### **Goal: NRG-1 – Preservation of Agricultural: Goal Land**

It shall be the policy of Glenn County to:

- **NRP-1:** Maintain agriculture as a primary extensive land use, not only in recognition of the economic importance of agriculture, but also in terms of agriculture's contribution to the preservation of open space and wildlife habitat.
- **NRP-2:** Support the concept that agriculture is a total, functioning system which will suffer when any part of it is subjected to regulation resulting in the decline of agricultural economics productivity, unmitigated land use conflicts, and/or excessive land fragmentation.
- **NRP-3:** Recognize the value of ricelands for waterfowl habitat, watershed management, and for groundwater recharge in an effort to preserve such lands and to maintain necessary water supplies in Glenn County.
- **NRP-5:** Continue participation in the Williamson Act: policy, and allow new lands devoted to commercial agriculture and located outside urban limit lines to enter the program, subject to the specific standards for inclusion contained in this General Plan.
- **NRP-8:** Assure that future land use decisions protect and enhance the agricultural economics industry while also protecting existing uses from potential incompatibilities.
- **NRP-9:** Encourage use of agricultural land preservation lands preservation tools such as incountry transfer of development rights, conservation easements, exclusive agricultural zoning and continuation of minimum parcel sizes.
- **NRP-11:** Monitor requests for subdivision of agricultural land preservationly developed and zoned parcels, located outside urban limit lines, in order to determine if present minimum parcel sizes are working effectively to discourage agricultural lands conversion.



- **NRP-12:** Review agricultural land conversion findings as described in NRP-11 with decision makers annually.
- **NRP-14:** Consult Important Farmland Maps and other sources of information on the relative value of agricultural lands when planning areas of growth, in order to direct growth and development toward lesser value agricultural lands.
- **NRP-15:** Recognize that, in order to realistically provide for the necessary diversity and growth required in the local economy, some lands presently committed to agriculture may be consumed by other development activities, and plan for and monitor such conversion to assure that it does not hinder or restrict existing agricultural operations. Priority shall be given to industries related to agriculture.
- **NRP-21:** Require notices of nonrenewal for Williamson Act lands as a condition of land division and boundary line changes, which result in parcel sizes below zoning minimums.

#### **Goal: NRG-4 – Preservation, Maintenance and Restoration of Forestry Resources**

It shall be the policy of Glenn County to:

- **NRP-63:** Preserve public and private timber lands and reserve them for that use, while at the same time encouraging compatible recreation and open space uses.

### **Community Development**

#### *Land Use/Growth: Goals and Policies*

#### **Goal: CDG-1 – Preservation of Agricultural Land**

It shall be the policy of Glenn County to:

- **CDP-1:** Establish urban-rural interface areas within which all new development shall incorporate a buffer zone to separate the development from surrounding agricultural land. This requirement may be eliminated or modified if there are significant topographical differences, substantial vegetation, or existing physical barriers between urban and rural areas.
- **CDP-2:** Require that permanent well-defined buffer areas be provided as part of new nonagricultural development proposals located adjacent to agricultural land uses on Important Farmlands designated as prime, of statewide importance, unique, or of local importance. These buffer areas shall be dedicated in perpetuity, shall be of sufficient size to protect agriculture from the impacts of incompatible development and to mitigate the effects of agricultural operations on adjacent land uses, and shall be credited as open space.
- **CDP-10:** Encourage the preservation of agricultural lands, including those lands in production, and those which are potentially productive.
- **CDP-11:** Direct nonagricultural development to marginal agricultural lands, avoiding Important Farmlands, wherever feasible alternative sites have been identified.

## **Goal: CDG-3 – Appropriate Distribution and Regulation of Land Uses**

It shall be the policy of Glenn County to:

- **CDP-20:** Assure that adequate provision is made in this General Plan for all types of uses and establish coherent land use patterns.
- **CDP-31:** Encourage commercial and industrial development in areas where adequate facilities and services exist or where facilities and services can be made available, including areas within incorporated cities, planned communities and along the I-5 corridor. Adequate facilities and services shall include community water and sewer if located within an incorporated city or urban limit line. In other areas, adequacy of sewer and water service shall be as determined by local health standards/regulations.

### **Glenn County Zoning Designations**

#### *AP – Agricultural Preserve Zone*

The Agricultural Preserve Zone is to be applied to lands which are covered by a California Land Conservation Act (Williamson Act) contract with the county for the following purposes:

- To preserve the maximum amount of the limited supply of agricultural land which is necessary in the conservation of the county's economic resources and vital for a healthy agricultural economy of the county
- To protect the general welfare of the agricultural community for encroachments of unrelated agricultural uses which, by their nature, would be injurious to the physical and economic well-being of the agricultural community

The following uses and structures shall be permitted in the AP zone:

- One single-family residence for each parcel of land (refer to minimum residential construction standards)
- Second residence per each parcel of land (refer to minimum residential construction standards) providing that such residence may only be occupied by relatives of the owner or by employees who work on the property
- Accessory buildings such as garages, carports, greenhouses, gardening sheds, recreation rooms, storage of petroleum products for the use of persons residing on the property and any other structures that are customarily used in conjunction with and incidental to a principal use or structure
- Home occupations as defined in Chapter 15.780
- Growing and harvesting of fruit and nut trees, vines, vegetables, horticultural specialties and timber
- Growing and harvesting of field crops, grain and hay crops, and the growing of grass for pasture and grazing
- Livestock farming, including the raising, feeding, maintaining and breeding of horses, cattle, sheep, goats and similar livestock
- Operation of apiaries and dairies

- Curing, processing, packaging, packing, storage and shipping of agricultural products; however, those particular operations, uses and structures which create smoke, fumes, dust, odor and other hazards may be permitted only if a conditional use permit is first secured
- Accessory buildings or structures required for the storage of any crops, products, equipment or uses lawfully permitted or produced on the premises. Structures such as barns, stables, coops, tank houses, storage tanks, wind machines, windmills, silos and other farm buildings
- Game preserves and hunting clubs, private or public, but shall not include permanent facilities such as hotels, motels, restaurants, club houses
- Agricultural service establishments primarily engaged in performing agricultural animal husbandry services or horticultural services to farms
- Temporary landing of aircraft engaged in agricultural uses
- Dehydrators but not for the general public on a commercial basis
- Stands for the purpose of displaying and selling agricultural, floricultural or farming products which are grown or produced on the premises; provided, that there shall not be more than one stand per parcel of land. The stand shall be set back from the street or highway right-of-way a distance of at least twenty feet. Such stand must be of good frame construction
- Seasonal farmworker housing which meets the Seasonal Farmworker Housing Standards as set forth in Chapter 15.800 and approved for such use pursuant to Title 25 of the CCR. Seasonal farmworker housing shall also conform to such public health, building, and fire safety criteria as may be established by resolution or ordinance of the Board of Supervisors

The following uses and structures may be permitted in the AP Zone only if a conditional use permit has first been secured:

- Irrigation and flood control facilities, public utility and public service structures including electric transmission and distribution substations, gas regulator stations, communications equipment buildings, public service pumping stations and reservoirs over fifty acre-feet or over twenty-five feet high
- Agricultural labor camps
- Injection wells
- Confined animal facility
- Mining which meets the requirements of Government Code Sections 51238.1 or 51238.2

The following uses and structures may be permitted only if an administrative permit has first been secured:

- Natural gas wells
- Home occupation not in residential dwelling for parcels of at least 10 acres or more in size
- Agricultural Homestay Establishment

## Site Area

- For prime land, the minimum area of any lot or parcel of land shall be thirty-six (36) acres or one quarter of one quarter section
- For nonprime land, the minimum area of any lot or parcel of land shall be one hundred forty-four (144) acres or one quarter section
- Variance for parcel size shall not be permitted
- The minimum area of any lot or parcel of land for each of the AP zones shall be as shown below:
  - AP-40 - Minimum Parcel Size 36 acres
  - AP-80 - Minimum Parcel Size 72 acres
  - AP-160 - Minimum Parcel Size 144 acres
- Non-contiguous parcels with a farmed area between 10 and 36 acres may be allowed if:
  - Parcel is in the same ownership as qualifying parcels but is not contiguous to the qualifying parcel, and
  - The contract contains a provision not allowing the non-contiguous parcel to be separated from the ownership of the qualifying parcels
  - The contract contains a provision not allowing construction of any residential use on the qualifying parcel

## FA – Foothill Agricultural/Forestry Zone

This zoning classification is established for the following purposes:

- To provide areas for extensive agricultural activities
- To protect the timber and forest lands economically suitable for logging

The following uses and structures shall be permitted in the FA Zone:

- One single-family dwelling or mobile home for each one hundred sixty acres, private farm buildings, accessory buildings, and uses.
- Home occupations if a permit is secured pursuant to Chapter 15.780
- Growing and harvesting forest products
- Logging and sawmill operations and accessory buildings and uses
- Growing and harvesting of any agricultural crop or product
- The use of implements of husbandry, including aircraft when used in the growing of crops or raising of animals, except as may be regulated by other laws or regulations
- Game preserves and hunting clubs, private or public, but shall not include permanent facilities such as hotels, motels, restaurants, club houses
- Agricultural service establishments primarily engaged in performing agricultural animal husbandry services or horticultural services to farmers

### PRELIMINARY – SUBJECT TO CHANGE

- Temporary landing of aircraft engaged in agricultural uses
- Livestock farming, including the raising, feeding, maintaining and breeding of horses, cattle, sheep, goats and similar livestock
- Accessory buildings or structures required for the storage of any crops, products, equipment or uses lawfully permitted or produced on the premises
- The keeping of fowl and animals shall conform to all other provisions of law governing same. No pen, coop, stable, barn or corral used for fowl and animals shall be kept or maintained within fifty feet of any dwelling or other building used for human habitation, or within one hundred feet of the front lot line of the lot upon which it is located, or within twenty-five feet of the street side of a corner lot, or within one hundred feet of any parcel of land used for a public park, school or similar institution
- Stands for the purpose of displaying and selling agricultural, floricultural or farming products which are grown or produced on the premises, provided that there shall be not more than one stand per lot or parcel of land. The ground coverage of the stand shall not exceed three hundred square feet and it shall be set back from the street or highway right-of-way a distance of at least twenty feet. Such stand must be of good frame construction
- Windmills, tank houses, buildings or shelters for farm equipment and machinery, water wells, water reservoirs and storage tanks

The following uses and structures may be permitted in the FA Zone only if a conditional use permit has first been secured:

- Commercial storage and handling of agricultural chemicals
- Farm labor camps and structures for transient labor
- Commercial hog and pig farming
- Animal sales yards
- Commercial stables, riding academies
- Public and private nonprofit nursery schools, elementary schools, junior high schools, high schools, and colleges
- Churches, public playgrounds, and parks
- Sales and services to farmers or farm-related activities
- Government buildings and properties
- Kennels, animal hospitals, and veterinarian's offices
- Public utility buildings and public service or utility uses (transmission and distribution lines excepted), including but not limited to reservoirs, storage tanks, pumping stations, telephone exchanges, power stations, transformer stations, service yards, and parking lots
- Cemeteries, crematories, and mausoleums



- Commercial storage (storage for resale) of inflammable fluid or gas fuels in a quantity greater than five hundred gallons in any container less than two and one-half feet below the surface of the ground
- New confined animal facilities
- Confined animal facility expansion

The following uses and structures may be permitted only if an administrative permit has first been secured:

- Second residence per each parcel of land
- Natural gas wells
- Agricultural Homestay Establishment

The minimum area of any lot or parcel of land in the FA Zone shall be one hundred forty-four (144) acres.

#### **4.16.3.3 Colusa County General Plan**

The 2012 Colusa County General Plan includes the following countywide goals, objectives, and policies that it uses as a basis for evaluating development proposals and other land-use related activities within the County. Provided below are the goals, objectives, and policies that reflect Colusa County's approach to managing land use, agricultural land and timberland preservation, and open space uses.

#### **Land Use Element**

The Land Use Element provides for a development and resource conservation pattern that preserves and fosters the rural and agricultural character of Colusa County while allowing for economic development.

*Goal LU-1: Maintain the Efficient and Harmonious use of Land in the County, Promoting a well Organized and Orderly Development Pattern, Avoiding Random, Haphazard Growth, Protecting Public Health and Safety, and Accommodating the Orderly and Sustainable Growth of Employment and Population*

#### **Objective LU-1A: Provide a Balanced Mix of Land Uses that Reflect the Needs of the County Residents and Businesses**

- **Policy LU 1-2:** Ensure that the County designates a supply of developable industrial, commercial, and residential land sufficient to meet projected growth and economic needs over the planning period.
- **Policy LU 1-7:** The Land Use Map may be amended from time to time to ensure that there is an adequate supply of industrial, commercial, public service, residential, and other lands to serve the County's economic needs. However, agricultural and open space lands shall not be re-designated or developed for urban or residential uses unless:
  - The proposed use is necessary for the economic, agricultural, and social well-being of the County.
  - Residential uses are located away from areas of excessive noise, smoke, or dust, especially in those areas adjoining freeways or industrial uses.
  - The proposed use will not conflict with existing or anticipated uses in the vicinity.

- **Policy LU 1-27:** Participate in countywide, regional and other multi-agency planning efforts related to agriculture, water supply, tourism, open space, air quality, housing, green infrastructure, recreation, habitat conservation, energy, emergency preparedness and flood protection to ensure that the needs of the County's residents and businesses are not overlooked.

*Goal LU-2: Maintain Agriculture as the Paramount Land Use in the County and Ensure Land Use and Planning Decisions Support a Strong Agricultural Economy*

**Objective LU-2A: Conserve and Protect Agricultural Land through a Variety of Strategies, including General Planning, Zoning, Taxation, and Easements**

- **Policy LU 2-1:** Agriculture, upland, and resource conservation are the primary land use designations to be used outside of the communities and any adjacent Urban Reserve Areas.
- **Policy LU 2-2:** Ensure that future development and land use decisions protect the integrity of agriculture and do not in any way create a hardship for the county's farmers.
- **Policy LU 2-3:** Ensure that lands presently in agricultural uses that do not adjoin existing communities continue to be designated for agricultural uses and are protected through the county's land use regulations.
- **Policy LU 2-4:** Manage agricultural parcels of less than 20 acres, including antiquated subdivisions, to improve compatibility with surrounding agricultural uses, including:
  - Minimizing the impact of residential development near farms.
  - Encouraging lot mergers to achieve larger parcel sizes.
  - Locating dwelling units and structures near roads and in a way that minimizes interruption or fragmentation of agricultural lands.

**Objective LU-2A: Only Permit Development on Agricultural Land that will Not Interfere with Viable Agricultural Operations**

*Agricultural and Upland (Agriculture General, Agriculture Transition, and Agriculture Upland) Policies*

- **Policy LU 2-5:** Require lands designated Agriculture General, Agriculture Transition, or Agriculture Upland to remain designated for agricultural use, including businesses or uses that directly support County agricultural activities, for at least the duration of the planning period, with the exception of lands redesignated consistent with the requirements of Policy LU 1-7.
- **Policy LU 2-6:** Discourage the division of land in agricultural areas if the division is not for the purpose of farming or other agricultural activities or if the division precludes the future opportunity to farm the land.

*Goal LU-3: Ensure that Future Development Achieves the County's Goals of Agricultural Conservation, Rural Character, Growth Focused Around Existing Communities and Uses Sustainable Practices through Application of Development Requirements*

- **Policy LU 3-4:** Require transitional uses or a buffer between residential and industrial uses, residential and general agriculture uses, and residential and agriculture upland uses.

*Goal LU-4: Provide Clear Land Use Objectives and Standards to Address the Unique Needs and Conditions Associated with the Proposed Sites Reservoir*

**Objective LU-4A: Provide for Orderly, Well-planned, and Compatible Growth associated with the Proposed Sites Reservoir and Surrounding Area**

- **Policy LU 4-1:** Support the creation of Sites Reservoir.
- **Policy LU 4-2:** Participate in State and regional planning efforts related to the creation of Sites Reservoir to the greatest extent feasible.
- **Policy LU 4-3:** Ensure that future land use decisions regarding Sites Reservoir and the surrounding area recognize the needs of the County and existing property owners to address adequate access for existing landowners and persons who travel beyond the area, noise, habitat for displaced species, and recreation and tourist opportunities that are compatible with the surrounding region.
- **Policy LU 4-4:** Support the efforts of the Sites Reservoir Joint Powers Authority, with particular emphasis on landowner relocation assistance and ensuring financial compensation for landowners adversely impacted by the creation of Sites Reservoir.
- **Policy LU 4-5:** Future land use and zoning designations in the Sites Reservoir Planning Area should emphasize natural resource and wildlife habitat protection, recreational opportunities, open space preservation, and limited commercial development to support recreation and tourism. Year-round housing in the vicinity of Sites Reservoir should be discouraged.

**Action LU 4-A:** When the final boundaries for the proposed Sites Reservoir are determined and approved by the California Department of Water Resources, develop a Sites Area Plan to guide land uses in the Sites Reservoir Area. The plan shall include policies and actions to promote the economic and social viability of the area and shall designate a variety of land uses. Land uses in the plan shall include provisions for active and passive recreation, limited commercial uses oriented toward recreation and tourism, viewing points of the main scenic areas of the reservoir and any bridges, and seasonal housing and campgrounds in the areas immediately adjacent the reservoir. Additionally, the plan shall identify agricultural land to accommodate the needs of existing landowners and farmers and habitat land for displaced species. Access, noise, water, wastewater, and emergency services shall be considered in the designation of land uses.

**Action LU 4-B:** Actively participate in the Sites Project Joint Powers Authority, and any other state and regional entities formed to plan and develop the Sites Reservoir. Ensure that the County's needs for a range of land uses, adequate and convenient access to existing parcels, habitat for plants, wildlife, and special-status species, adequate and convenient access to communities (Lodoga, Stonyford, etc.), and recreation and tourist opportunities are addressed and that measures to promote the economic and social viability of the area and to reduce adverse noise, traffic, and other adverse impacts are identified and implemented.

**Agricultural Element**

The Agriculture Element contains goals, objectives, policies and action items geared towards the protection of agricultural lands, the expansion of agricultural operations, and the reduction of conflicts between agricultural and non-agricultural land uses.

### *Goal AG-1: Preserve and Protect Agricultural Land*

#### **Objective AG 1-A: Recognize that Agricultural Land is the County's Greatest Natural Asset and Take Appropriate Measures to Restrict the Conversion of Agricultural Lands to Non-Agricultural Use**

- **Policy AG 1-1:** The following General Plan land use designations are considered agricultural lands: Agricultural General (AG), Agricultural Upland (AU), and Agricultural Transition (AT).
- **Policy AG 1-2:** Lands designated for agricultural uses shall remain designated for agriculture and not be rezoned or redesignated to an urban use unless all of the following criteria are met:
  - The lot(s) for which conversion is requested is adjacent to agriculture or agricultural support uses (e.g. receiving plants, hulling plants, warehousing, trucking, distribution, and other related activities.) on no more than two sides of the lot(s) or less than 50 percent of the perimeter of the lot(s) proposed for conversion.
  - The conversion will not be detrimental to existing agricultural operations.
  - The conversion land is within 500 feet of existing urban infrastructure (e.g., water supply lines and sewer lines) and conversion will constitute a logical contiguous extension of a designated urban area.
  - The lot(s) proposed for conversion include a buffer at the agricultural/urban transition zone to protect future users of the conversion lands from nuisances associated with typical agricultural practices.
  - No feasible alternative location (e.g., non-agricultural lands or less productive agricultural lands) exists.
  - The use would not have a significant adverse effect on existing or potential agricultural activities on surrounding agricultural lands.
- **Policy AG 1-3:** Land divisions that separate a residence or an agricultural processing facility from the agricultural land shall be prohibited, unless the lot split meets the minimum lot size requirement of the zoning district.
- **Policy AG 1-4:** Maintain agricultural parcel sizes that are large enough to sustain agricultural activities. The following minimum lot sizes shall apply to agricultural lands: Agricultural General- 40 acres, Agricultural Upland-80 acres, and Agricultural Transition -10 acres.
- **Policy AG 1-5:** Encourage lot mergers to meet minimum parcel size standards.
- **Policy AG 1-6:** Residential development on agricultural lands shall be limited to housing for family members and agricultural employee housing.

*Goal AG-2: Maintain and Enhance Agriculture as the County's Most Critical Land Use, Economic Sector, and Resource*

**Objective AG 2-B: Allow Limited Recreation and Resource Production Uses on Agricultural Lands While Ensuring that Such Uses Do Not Adversely Affect Agricultural Activities**

- **Policy AG 2-2:** Visitor-serving uses that support and are incidental to agricultural production, such as tasting rooms, including sales and promotion of products grown or processed in the County, educational activities and tours, incidental sales of items related to local area agricultural products, promotional events, and farm homestays, which allow visitors to visit a farm in the form of a vacation, that support and are secondary and incidental to local agricultural production, shall be allowed on agricultural lands provided the following findings are made:
  - The use promotes and markets only agricultural products grown or processed in the local area.
  - The use is compatible with and secondary and incidental to agricultural production activities in the area.
  - The use will not require the extension of sewer and water service.
  - The use is compatible with existing uses in the area.
  - The use will not adversely affect agricultural production in the area.
  - The use will not result in significant adverse traffic or air quality impacts.
  - The use will not be detrimental to the rural character of the area.
- **Policy AG 2-3:** Low-intensity recreational uses may be permitted on agricultural lands as long as they do not interfere with the principal use of the land for agricultural purposes. Examples include hunting, fishing, target shooting, horseback riding, hiking and exhibitions of working farms or ranches.

**Objective AG 2-C: Preserve and Protect Water, Soil, and Natural Resources Necessary for Agricultural Operations**

- **Policy AG 2-8:** Support and promote water development projects which provide additional sources of water for agricultural uses.
- **Policy AG 2-9:** Support the procurement of expanded and additional water rights which provide for contractual supply reliability for agricultural use.

**Open Space and Recreation Element**

Recreation is an important concern of County residents, and park facilities and recreational opportunities cannot exist without open space. This element addresses parks and recreation issues, goals, objectives, and policies.

*Goal OSR-1: Preserve and Protect the Natural Resources and Scenic Beauty of the County*

**Objective OSR 1-A: Provide a Diverse and Accessible Range of Open Space Lands**

- **Policy OSR 1-9:** Maintain open space for future water and drainage projects.



### **Objective OSR 1-E: Retain and Preserve Expansive Open spaces, Uninterrupted by Urban Development, both in the Valley Floor and in Upland Valleys**

- **Policy OSR 1-23:** Ensure that open space buffers such as greenbelts, drainage features, parks, or other improved and maintained features are provided by new development projects, where appropriate, between new urban development and sensitive open space uses, such as agriculture and wildlife habitat. Buffers shall be adequately sized to reduce potential land use conflicts between adjacent uses.

#### *Goal OSR-2: Increase Opportunities for Recreational Activities in Open Space*

### **Objective OSR 2-A: Ensure Adequate and Increased Public Access is Available to Open Space Recreation Areas**

- **Policy OSR 2-5:** Public access to the water and shoreline areas of lakes, reservoirs, rivers and streams, should be provided where appropriate.

### **Objective OSR 2-B: Increase Opportunities for County Residents and Visitors to Engage in a Broad Variety of Outdoor Recreation Activities**

- **Policy OSR 2-13:** Encourage recreational uses that emphasize use of the waterways in locations directly on the Sacramento River, East Park Reservoir, and the proposed Sites Reservoir. Examples include fishing, canoeing, boating, and nature observation. With the exception of boat launches and docks, more active uses, such as parking, restrooms, and picnic areas, shall be located in areas away from the river and sensitive riparian habitat.
- **Policy OSR 2-14:** Encourage recreational uses that emphasize a range of outdoor activities, such as hiking, drive-in camping, hike-in camping, picnics, off-highway vehicle use, and nature observation, at the Mendocino National Forest, East Park Reservoir, proposed Sites Reservoir, Sacramento River, and other outdoor recreation areas.
- **Policy OSR 2-15:** Support the location and creation of Sites Reservoir in Colusa County (See Policies LU 4-1 through 4-5).
- **Policy OSR 2-16:** Require future water development projects, including reservoirs, marinas, and water-front developments, to include provisions for public access to the water and shoreline areas to the greatest extent feasible, without compromising private property rights.

### **Colusa County General Plan Land Use and Zoning Designations**

The Agriculture General (AG)<sup>29</sup> land use designation identifies areas to be retained for agriculture and/or uses that are complementary to existing or nearby agricultural uses. This designation includes lands under agricultural preservation and/or conservation contracts and easements; land having present or future potential for agricultural production, and contiguous or intermixed smaller parcels on which non-compatible uses could jeopardize the long-term agricultural use of nearby agricultural lands. Lands designated Agriculture General are planned to be preserved for agricultural uses and the intent of the

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<sup>29</sup> Agriculture Preserve (A-P) and Exclusive Agriculture (E-A) zoning districts are compatible with the Agriculture General land use designation.

designation is to preserve such lands for existing and future agricultural use and protect these lands from the pressures of development.

The Colusa County zoning classifications are presented below.

### *A-P – Agriculture Preserve Zone*

The Agriculture Preserve or A-P Zone is intended to be applied in areas where agriculture is the natural and desirable primary land use and where the protection of agriculture from the encroachment of incompatible uses is essential to the general welfare.

- Principal Permitted Uses:
  - All general agricultural uses, including animal husbandry and all structures appurtenant to principal agricultural uses, main single-family dwelling for the landowner or the primary tenant of the property, nurseries and greenhouses, private farm airports, guest houses not rented or otherwise conducted as a business
- Uses Permitted with a Use Permit:
  - Single-family dwelling units for immediate relatives of the property owner, caretakers or farm labor housing
  - Commercial animal raising or farms
  - Agriculture auction and sales yards or collection yards
  - Agricultural products processing plants
  - Establishments for sale, rental or repair of farm equipment and supplies
  - Animal hospitals and kennels
  - Farm labor camps
  - Airports for commercial farm services
  - Residential mobile homes
  - Exploratory drilling and production of fossil fuels and geothermal power
  - Recreational uses such as gun and hunt clubs, boat landings, and resorts
- Other Regulations:
  - Minimum parcel size: eighty acres
  - Minimum parcel width: one hundred feet
  - Minimum parcel depth: two hundred feet
  - Minimum yards: front, twenty-five feet; side, ten feet; rear, twenty feet
  - Maximum building height (residential): thirty feet
  - Development standards as set forth in Article 8

### *E-A – Exclusive Agriculture Zone*

The Exclusive Agriculture or E-A zoning classification is intended to be applied in agricultural lands with a General Plan land use designation of AG. The E-A Zone is to be applied to those areas where

agricultural activities are the appropriate and desirable primary land use. The E-A Zone is to be applied to those areas where the protection of agriculture from the encroachment of incompatible uses is essential to the general welfare of the county citizens. The E-A Zone is to help maintain, protect, enhance, and propagate the county's agricultural resources. The E-A Zone is to protect and maintain a viable agricultural economy in the county. The E-A Zone is to protect agriculturalists from environmental impacts and pressures as they relate to groundwater, nonagriculture traffic, and encroachment from residential development resulting in common agriculture/residential conflicts related to noise, odors, spraying, vandalism, trespassing, and predation from wildlife habitating on nonmaintained adjacent ten-acre sized lots.

- Principal Permitted Uses:
  - All general agricultural uses, including farming, dairying, and pasturage
  - Horticulture, floriculture, aquaculture, and viticulture; the growing and harvesting of forestry products
  - Animal husbandry, and general keeping of animals, subject to the animal maintenance requirements of section 6.04
  - Nurseries and greenhouses
  - Private farm airports
  - Housing allowed as a permitted use as it is an appurtenant use to principal agricultural uses:
    - Primary residence, one single-family dwelling or modular home per parcel, for the landowner or primary tenant of the property whose principal income is derived from those agricultural activities upon which the house is located and other agricultural lands
    - Housing facilities (including mobile/modular homes) to accommodate up to twelve agricultural workers and their families employed by the owner or operator of premises or owners or operators of other agricultural lands
  - Buildings and uses accessory to the permitted uses, barns and other storage or shop buildings; those structures normally associated with a single-family residence use and in conjunction with or incidental to the residential use, including, but not limited to, a garage, workshop, shed, garden, private swimming pool, private tennis court, gazebo, spa, and other similar structures/uses
- Uses Permitted with a Use Permit:
  - Guest houses not rented or otherwise conducted as a business
  - Agriculture auction and sales or collection yards
  - Agriculture products processing plants
  - Agriculture chemicals manufacture, distribution, and storage
  - Establishments for sale, rental or repair of farm equipment and supplies
  - Establishments for repair of natural gas equipment and associated accessories associated with natural gas wells
  - Public and quasi-public uses

- Public tasting rooms in conjunction with a winery; provided, that such tasting room be considered accessory to the on-site winery
- Public or riding stables and academies
- Outdoor commercial recreational facilities on sites not less than five acres
- Kennels and animal hospitals
- Airports for commercial farm services
- Second dwelling unit, either a single-family dwelling unit or modular home for immediate relatives of property owner, or caretaker
- Oil and natural gas wells
- The erection, construction, alteration or maintenance of gas, electric, water, or communication transmission facilities
- Exploratory drilling and production of fossil fuels, geothermal power, and natural gas
- Recreational uses such as seasonal hunting and fishing camps, duck clubs with accessory structures, boat landings with accessory structures, and resorts
- Other Regulations:
  - Minimum parcel size: forty acres, including the existing and proposed rights-of-way of the county road or roads on which said parcel has frontage on the front, rear or side
  - Minimum parcel width: one hundred feet
  - Minimum parcel depth: two hundred feet
  - Minimum yards: front – twenty-five feet; side – twenty-five feet; rear – twenty-five feet
  - Maximum building height (residential): thirty feet
  - Development standards as set forth in Article 8. (Ordinance Number 722, §1.)

### ***M – Industrial Zone***

The industrial or M Zone is intended to apply to areas devoted to light manufacturing, heavy commercial uses, large administrative facilities and normal operations of industries, subject only to such regulations as are needed to control congestion and protect surrounding areas from significant environmental impacts.

- Principal Permitted Uses:
  - Food processing plants, fabrication or processing of metal, wood, fiber, plastic or pottery products
  - Administrative, business and professional offices, editorial, publishing and bookbinding
  - Manufacturing of electrical and electronic equipment; research and development laboratories
  - Warehouses, enclosed storage and distribution facilities

- Automotive and farm equipment sales, service, repair and rental facilities; farm and building supplies; truck terminals
- Industrial manufacturing uses
- Uses Permitted with a Use Permit:
  - Churches and other private institutions
  - Private recreation facilities
  - Commercial animal farms, animal hospitals and kennels
  - Animal products processing plants
  - Junk yards, garbage dumps, sewage plants
  - Smelting or reduction of metallic ores
  - Manufacturing, refining and storage by manufacturers or wholesalers or petroleum or petroleum products, acids, cement, explosives, fireworks, gas, glue, gypsum, and inflammable fluids or gasses
  - Drilling for oil or gas, or commercial excavation of sand, rock, gravel, or other natural materials
  - Manufacture of concrete, pottery, or asphaltic paving products
  - Energy production plants
- Other Regulations:
  - Minimum lot size, width, depth, and minimum yards: none
  - Maximum building height: fifty feet
  - Development standards as set forth in Article 8

### *F-W – Floodway Zone*

The Floodway or F-W Zone is intended to be applied to lands which lie within stream or tidal channels and to adjacent areas which are periodically inundated, or which will be inundated by a “design flood.”

The regulations set forth in this section are intended to provide for the reasonably unrestricted passage of a “design flood” and to provide reasonable measures for the protection of life and property in floodway areas.

- Principal Permitted Uses:
  - General agriculture, but not including building or structures
  - Recreational uses on open land, including public and private parks and golf courses
- Uses Permitted with a Use Permit:
  - Private recreation facilities
  - Boat docks and launching facilities
  - Water, sewer, roadway, bridge, and other such facilities necessary for public health and safety

- Minor or temporary structures incidental to agricultural or recreational uses, which will not impede flood flow and are of flood-proof design
- Excavation of natural materials or construction of earthworks or water flow control devices
- Other Regulations:
  - None, except conditions in use permits
  - Development standards as set forth in Article 8

## **4.17 Chapter 21: Recreation Resources**

### **4.17.1 Federal Plans, Policies, and Regulations**

#### **4.17.1.1 Management Guide for the Shasta and Trinity Units of the Whiskeytown-Shasta-Trinity National Recreation Area**

The purpose of the 1996 Shasta-Trinity National Recreation Area (NRA) management guide is to integrate past decisions that remain pertinent for managing the Shasta and Trinity units of the NRA with standards, guidelines, and management prescriptions incorporated from the April 1995 Shasta-Trinity National Forest Land and Resource Management Plan (LRMP). The LRMP establishes integrated land management direction, including time frames for implementing, monitoring, and evaluating projects, activities, programs, and budgeting in the Shasta-Trinity National Forest for a period of 10 to 15 years. The NRA management guide provides an analysis of direction from the LRMP, a summary of existing conditions, a description of desired future conditions, and a strategy of management recommendations, opportunities, and mitigation measures that will be used to implement the direction in the LRMP and achieve the desired future conditions.

#### **4.17.1.2 Federal Water Project Recreation Act of 1965**

This statute declares that recreation, fish and wildlife enhancement be given full consideration as purposes of federal water projects if non-federal public bodies agree: 1) to bear 50 percent of the cost of recreation enhancement and 25 percent of the cost of fish and wildlife enhancement, 2) to administer project lands and water bodies for these purposes, and 3) to bear all operation, maintenance, and replacement costs. This cost sharing is not required on federal lands under federal programs for fish and wildlife conservation.

#### **4.17.1.3 Rehabilitation Act of 1973**

This federal act extended and revised authorization of grants to states for vocational rehabilitation. One of the purposes of the act is to evaluate architectural and transportation barriers to handicapped individuals, develop new approaches, enforce statutory standards and requirements regarding barrier free construction of public facilities.

#### **4.17.1.4 Architectural Barriers Act of 1968**

The Architectural Barriers Act requires access to facilities designed, built, altered, or leased with federal funds. The Act is enforced by the Department of Defense, the Department of Housing and Urban Development, the General Services Administration, and the U.S. Postal Service to ensure, whenever possible, that physically handicapped persons will have ready access to, and use of, such buildings



#### **4.17.1.5 Americans with Disabilities Act of 1990, as Amended**

Public facilities must comply with the Americans with Disabilities Act (ADA) of 1990, as amended, to the extent possible. Needs and considerations regarding the disabled must be addressed and new facilities must comply with ADA standards.

#### **4.17.1.6 San Luis Authorization Act**

Congress passed the San Luis Authorization Act in 1960 to authorize the construction and operation of the San Luis Unit and to enable Reclamation to participate in the development of recreation facilities. The San Luis Unit is a part of the CVP and the SWP and is jointly operated by Reclamation and DWR. The principal purpose of the federal portion of the facilities is to furnish approximately 1.25 million acre-feet of water as a supplemental irrigation supply to 600,000 acres located in the western portion of Fresno, Kings, and Merced counties.

#### **4.17.2 State Plans, Policies, and Regulations**

##### **4.17.2.1 State Water Code Section 11900-11901 (Implementing the Davis-Dolwig Act)**

Chapter 10, Part 3, Division 6 of the California Water Code states that State facilities designed for the storage, conservation, or regulation of water shall be constructed in a manner consistent with the full utilization of their potential for the enhancement of fish and wildlife and to meet recreational needs. It specifies that providing for the enhancement of fish and wildlife and for recreation in connection with water storage, conservation, or regulation facilities benefits all of the people of California and that project construction costs attributable to such enhancement of fish and wildlife and recreation features should be borne by them. It further states that State recreation and the enhancement of fish and wildlife resources are among the purposes of State water projects; that the acquisition of real property for such purposes be planned and initiated concurrently with and as a part of the land acquisition program for other purposes of State water projects; and that facilities for such purposes be ready and available for public use when each State water project having a potential for such uses is completed. DWR is required to operate the SWP Facilities in accordance with this Act.

##### **4.17.2.2 California Public Trust Doctrine**

The California Public Trust Doctrine holds that certain resources are above private ownership and reside in the trust of the government for the benefit of the people. It is the duty of the government to administer these resources for the highest public interest. California courts have expanded the scope of the Doctrine to include recreation and environmental benefits. Additionally, the Doctrine has been expanded to include not only navigable waters, but all State-owned lands, fish, and wildlife.

#### **Folsom Lake State Recreation Area General Plan and Amendment**

The first Folsom Lake State Recreation Area (SRA) General Plan was approved in 1979. The plan was amended in 1996 to include additional facility recommendations for the Negro Bar (Lake Natoma), Willow Creek (Lake Natoma), and Beals Point (Folsom Lake) areas as part of the American River Bridge Crossing Project at Lake Natoma. The California Department of Parks and Recreation (State Parks) is updating the general plan for the Folsom Lake SRA.

The original 1979 general plan identifies the objectives for both Lake Natoma and Folsom Lake.

### **Lake Oroville State Recreation Area Resource Management Plan and General Development Plan and Amendment**

In 1973, the Lake Oroville SRA Resource Management Plan and General Development Plan were approved. The plans outlined the allowable use intensities and planned development for each area in the SRA. In 1988, an amendment to the plan was approved to address three issues in the Lime Saddle area: acquisition of land, disposal of a parcel, and expansion of the existing Lime Saddle Marina.

### **San Luis Reservoir State Recreation Area General Development Plan and Amendment**

The General Development Plan for the San Luis Reservoir SRA was approved in 1971, although the plan was not developed to the same level of detail used for later State Parks general plans. In 1986, the general development plan was amended to revise the land use designation for about 65 acres of land on the northern side of O'Neill Forebay from undesignated to a day and overnight use designation, thus allowing development of overnight facilities in the Meadows area and boat-in day-use and camping facilities in the Grant Line area. State Parks is updating the general plan for the San Luis Reservoir SRA.

#### **4.17.3 Regional and Local Plans, Policies, and Regulations**

The following local regulations are applicable to recreation resources, but are discussed in other sections of this chapter, as indicated in parentheses:

- Glenn County General Plan (General)
- Colusa County General Plan (General)

## **4.18 Chapter 22: Socioeconomics**

### **4.18.1 Federal Plans, Policies, and Regulations**

#### **4.18.1.1 Constitution of the United States: Fifth Amendment Takings Clause**

The takings clause of the Fifth Amendment provides that “[n]o person shall be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.” The takings clause does not prohibit the federal government from taking private property; it requires that property owners be compensated for the value of the property taken. According to the U.S. Supreme Court, the takings clause “was designed to bar Government from forcing some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole” (Armstrong v. United States [1960] 364 U.S. 40, 49). The taking of private property by the government can occur in a number of ways: by direct appropriation, by occupation or invasion, or by regulation (regulatory taking).

Government exactions may be considered unconstitutional takings if they do not meet the “reasonable relationship nexus” test, as set out in Dolan v. City of Tigard (1994) 512 U.S. 374 and Nollan v. California Coastal Commission (1987) 483 U.S. 825. In order for an exaction to be valid: (1) the legislation must serve a legitimate governmental purpose; and (2) the means used to achieve the objective must substantially advance the intended purpose.

#### **4.18.1.2 Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970**

Title II, Uniform Relocation Assistance, §201(b), establishes a uniform policy for the fair and equitable treatment of persons displaced as a direct result of programs or projects undertaken by a federal agency or with federal financial assistance. The primary purpose of this title is to ensure that such persons shall not suffer disproportionate injuries as a result of programs and projects designed for the benefit of the public as a whole and to minimize the hardship of displacement on such persons.

Title III, Uniform Real Property Acquisition Policy, §301, was developed “In order to encourage and expedite the acquisition of real property by agreements with owners, to avoid litigation and relieve congestion in the courts, to assure consistent treatment for owners in the many federal programs, and to promote public confidence in federal land acquisition practices.”

#### **4.18.1.3 Housing and Community Development Act of 1974**

Pursuant to §104(d) of the Housing and Community Development Act of 1974, as amended and the implementing regulations at 24 CFR Part 42, a residential anti-displacement and relocation assistance plan is required and must provide for: (1) one-for-one replacement of occupied and vacant occupiable low- and moderate-income dwelling units demolished or converted to another use in connection with a development project assisted under Parts 570 and 92; and (2) provide relocation assistance for all low- and moderate-income persons who occupied housing that is demolished or converted to a use other than for low- or moderate-income housing.

#### **4.18.1.4 U.S. Department of Agriculture**

The USDA administers and implements several programs that can influence both how the agricultural sector may react to proposed project activities and how large the direct economic effects on agriculture might be. These programs include the direct and countercyclical payments program, commonly referred to as the farm commodity programs, and the Conservation Reserve Program and similar programs. This section briefly describes important parts of the farm program.

The current farm commodity programs are defined in the Food, Conservation, and Energy Act of 2008, passed by Congress and signed into law in 2008. This law, commonly referred to as the Farm Bill, authorizes the programs for the next five years. At any time, Congress may, with the President’s approval, extend, modify, restructure, or eliminate one or more programs.

The current Farm Bill contains 15 titles that describe and authorize one or more specific programs. Key programs include:

- **Commodity Programs.** Certain agricultural commodities receive price supports and/or direct payments under the 2008 Farm Bill. These include corn, cotton, rice, small grains, grain sorghum, oilseeds, dry peas/lentils, and sugar crops (other crops also are included but are not grown in California). For the crop programs, benefits are paid to producers with eligible historical acreage (called Base Acres) of covered commodities. Some of these payments are available even if the program commodity is no longer grown on that base acreage; however, conversion of the land to nonagricultural uses generally eliminates all commodity program payments.
- **Conservation Reserve and Wetland Reserve Programs.** These programs provide annual payments to farmers willing to enter long-term contracts to maintain vegetative cover on eligible lands or to

restore wetlands on previously agricultural land. They also provide cost-sharing and other financial assistance for soil conservation, water conservation, and wildlife conservation activities.

- **Marketing and Credit Assistance.** Numerous programs are designed to provide direct assistance, credit guarantees, and loans to support agriculture.
- **Crop Insurance and Disaster Assistance.** These programs provide subsidized crop insurance to farmers and provide disaster assistance payments to crop and livestock producers in declared disaster counties.

#### **4.18.2 State Plans, Policies, and Regulations**

##### **4.18.2.1 California Constitution: Article 1 Declaration of Rights, Section 19**

Pursuant to the California Constitution and other statutes, public agencies may use eminent domain power to: (1) acquire private property (real, business, personal, tangible, or intangible property); or (2) reduce the economic value of property for a public purpose (these are referred to as “damages”) if they pay “just compensation” to the owner. Just compensation includes: (1) the fair market value of the real property and its improvements; and (2) any diminution in value of the remaining property when property taken is part of a larger parcel.

##### **4.18.2.2 California Relocation Assistance Act and the California Relocation Assistance and Real Property Acquisition Guidelines**

Chapter 16, §7260 to 7277 of the California Government Code states that whenever programs or projects undertaken by a public entity result in the displacement of any person, the displaced person is entitled to payment for actual moving and related expenses as the public entity determines to be reasonable and necessary.

CCR Title 25, Chapter 6 provides guidelines to ensure that uniform, fair, and equitable treatment is afforded persons displaced from their homes, businesses, or farms as a result of the actions of a public entity in order that such persons shall not suffer disproportionate injury as a result of action taken for the benefit of the public as a whole.

#### **4.18.3 Regional and Local Plans, Policies, and Regulations**

The following local regulations are applicable to socioeconomics, but are discussed in other sections of this chapter, as indicated in parentheses:

- Glenn County General Plan (General)
- Colusa County General Plan (General)

### **4.19 Chapter 23: Environmental Justice**

#### **4.19.1 Federal Plans, Policies, and Regulations**

##### **4.19.1.1 Executive Order 12898**

EO 12898 provides that each federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income

populations. The order calls for the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. “Fair treatment” means that no group of people, including racial, ethnic, or socioeconomic groups, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal or commercial operations. Environmental justice is the fair treatment and meaningful involvement of all people – regardless of race, ethnicity, income, or education level – in environmental decision making. Environmental justice programs promote the protection of human health and the environment, empowerment via public participation, and the dissemination of relevant information to inform and educate affected communities.

#### **4.19.1.2 Council on Environmental Quality Guidance (1997)**

CEQ guidance for performing environmental justice analyses as part of the NEPA process provides definitions, thresholds, and overall methodological guidance for environmental justice analyses.

#### **4.19.1.3 U.S. Department of the Interior Environmental Compliance Memorandum No. ECM 95-3**

Memorandum No. ECM 95-3 provides guidance for complying with EO 12898 for DOI actions and programs. It stipulates that environmental documents prepared by DOI agencies shall analyze the impact of agency actions on minority and low-income populations. The memorandum directs agencies to evaluate the equity of the impacts imposed on these populations relative to the benefit of the action. The relevant environmental document should identify any such impacts, or the absence of impacts, on minority and low-income populations.

#### **U.S. Department of the Interior Environmental Justice Strategic Plan – 1995**

EO 12898 requires federal agencies to develop agency-specific environmental justice plans. The DOI Environmental Justice Strategic Plan – 1995 provides the following goals (1995):

- **Goal 1:** The Department will involve minority and low-income communities as we make environmental decisions and assure public access to our environmental information.
- **Goal 2:** The Department will provide its employees environmental justice guidance and with the help of minority and low-income communities develop training which will reduce their exposure to environmental health and safety hazards.
- **Goal 3:** The Department will use and expand its science, research, and data collection capabilities on innovative solutions to environmental justice-related issues (for example, assisting in the identification of different consumption patterns of populations who rely principally on fish and/or wildlife for subsistence).
- **Goal 4:** The Department will use our public partnership opportunities with environmental and grassroots groups, business, academic, labor organizations, and Federal, Tribal, and local governments to advance environmental justice.

#### **4.19.1.4 U.S. Environmental Protection Agency Office of Environmental Justice's Environmental Justice Implementation Plan (1997)**

The Environmental Justice Implementation Plan supplements EO 12898 and its associated Environmental Justice Strategic Plan by providing a timetable for undertaking revisions, as required by the EO, and identifying lead process owners and realistic measures of success.

#### **4.19.1.5 Title VI of the Civil Rights Act of 1964**

Title VI, 42 U.S.C. §2000d et seq., was enacted as part of the landmark Civil Rights Act of 1964. It prohibits discrimination on the basis of race, color, and national origin in programs and activities receiving federal financial assistance.

#### **4.19.1.6 U.S. Environmental Protection Agency Final Guidance for Incorporating Environmental Justice Concerns in the EPA's National Environmental Policy Act Compliance Analyses (1998)**

This framework serves as a guidance to incorporate environmental justice goals into the USEPA's preparation of EISs and environmental assessments (EAs) pursuant to NEPA. This framework emphasizes the importance of selecting an analytical process appropriate to the unique circumstances of the potentially affected community.

### **4.19.2 State Plans, Policies, and Regulations**

The following State regulation is applicable to environmental justice, but is discussed in another section of this chapter, as indicated in parentheses:

- Delta Vision Strategic Plan (Aquatic Biological Resources)

#### **4.19.2.1 Senate Bill 115 (Solis)**

Approved in 1999, California SB 115 (Solis) adds §65040.12 to the Government Code and Part 3 to Division 34 of the Public Resources Code, both of which concern environmental justice. The bill provides that the Governor's Office of Planning and Research (OPR) is the coordinating agency in California State government for environmental justice programs.

#### **4.19.2.2 California Government Code Section 65040.12**

Pursuant to AB 1553, signed into law in October 2001, §65040.12 requires the OPR to:

1. Consult with the Secretaries of the CalEPA, the Resources Agency, and the Business, Transportation and Housing Agency, the Working Group on Environmental Justice established pursuant to §72002 of the Public Resources Code, any other appropriate State agencies, and all other interested members of the public and private sectors in this state.
2. Coordinate the office's efforts and share information regarding environmental justice programs with the CEQ, USEPA, the General Accounting Office, the Office of Management and Budget, and other federal agencies.
3. Review and evaluate any information from federal agencies that is obtained as a result of their respective regulatory activities under federal EO 12898, and from the Working Group on Environmental Justice established pursuant to §72002 of the Public Resources Code.



4. Establish guidelines for addressing environmental justice issues in City and County general plans, including planning methods for the equitable distribution of public facilities and services, industrial land uses, and the promotion of more livable communities.

#### **4.19.2.3 California State Lands Commission Environmental Justice Policy (October 1, 2002)**

The California State Lands Commission (CSLC) developed an Environmental Justice Policy to ensure equity and fairness in its own processes and procedures, and in October 2002, it adopted an amended policy. The policy ensures that “environmental justice is an essential consideration in its processes, decisions, and programs, and that all people who live in California have a meaningful way to participate in these activities”. The CSLC implements the policy, in part, by identifying and communicating with relevant populations that could be adversely and disproportionately affected by CSLC projects or programs, and by ensuring that a range of reasonable alternatives is identified to minimize or eliminate environmental impacts affecting such populations. Pursuant to the agency’s adopted environmental justice policy, CSLC’s staff is required to report back to the Commission regarding how environmental justice is integrated into its programs, processes, and activities.

#### **4.19.2.4 California Public Resources Code Sections 71110 to 71116**

Public Resources Code §71110 to 71116 require the CalEPA to develop a model environmental justice mission statement for boards, departments, and offices in the agency. In addition, §71113 requires the CalEPA to convene a Working Group in Environmental Justice to develop a comprehensive environmental justice strategy. The sections also require this strategy to be reviewed and updated. Finally, §71116 establishes a small grant program for nonprofit organizations and federally recognized tribal entities to research environmental justice issues in their community and address larger environmental justice issues.

#### **4.19.2.5 CALFED Environmental Justice Statement**

The CALFED Bay-Delta Program states that potential effects of water management changes may accrue to rural communities and that public health and economic impacts may accrue to minorities and disadvantaged people throughout the Delta and vicinity as a result of water quality program actions. Specifically, CALFED identifies three overall guiding principles regarding environmental justice:

- The CALFED Program and its participating agencies are committed to seeking fair treatment of people of all races, cultures, and incomes, such that no segment of the population bears a disproportionately high or adverse health, environmental, social or economic impact resulting from CALFED’s programs, policies, or actions.
- The CALFED Agencies will be responsible for ensuring this policy is carried out across all program areas through the development of environmental justice goals and objectives.
- The CALFED Agencies develop the capacity and process to understand, monitor, and address environmental justice issues as the program moves into implementation, including identifying and developing specific methods to address and mitigate environmental justice impacts.

### **4.19.3 Regional and Local Plans, Policies, and Regulations**

The following local regulations are applicable to environmental justice, but are discussed in other sections of this chapter, as indicated in parentheses:

- Tehama County General Plan (Land Use)
- Glenn County General Plan (General)
- Colusa County General Plan (General)

## **4.20 Chapter 24: Air Quality**

### **4.20.1 Federal Plans, Policies, and Regulations**

#### **4.20.1.1 Clean Air Act**

The federal Clean Air Act (CAA) is the federal law passed in 1970, with amendments in 1977 and 1990. It forms the basis for the national air pollution control effort. Basic elements of the CAA include National Ambient Air Quality Standards (NAAQS) for major air pollutants, hazardous air pollutants standards, state attainment plans, motor vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

#### **4.20.1.2 National Ambient Air Quality Standards and Federal Air Quality Designations**

Pursuant to the CAA, the USEPA established NAAQS for carbon monoxide (CO), ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>x</sub> as SO<sub>2</sub>), particulate matter less than 10 microns in aerodynamic diameter (PM<sub>10</sub>), particulate matter less than 2.5 microns in aerodynamic diameter (PM<sub>2.5</sub>), and lead (Pb). These pollutants are referred to as criteria pollutants because numerical health-based criteria have been established that define acceptable levels of exposure for each pollutant. The NAAQS for these pollutants are provided in Chapter 24 Air Quality.

The USEPA has revised the NAAQS several times since their original implementation and will continue to do so as the health effects of exposure to pollution are better understood. As new NAAQS are adopted, ambient air quality monitoring data are reviewed by the regulatory agencies for each geographic area, and the USEPA uses the findings to designate the areas' pollutant-specific attainment status.

The USEPA designates areas as attainment<sup>30</sup>, nonattainment<sup>31</sup>, or unclassified<sup>32</sup> for individual criteria pollutants depending on whether the areas achieve (i.e., attain) the applicable NAAQS for each pollutant. An area can be designated as attainment for one pollutant (for example, NO<sub>2</sub>) and nonattainment for others (for example, O<sub>3</sub> and PM<sub>10</sub>). Unclassified areas are treated as attainment areas for regulatory purposes.

For some pollutants, there are numerous classifications of the nonattainment designation, depending on the severity of an area's nonattainment status. For example, the O<sub>3</sub> nonattainment designation has eight subclasses: basic, transitional, marginal, moderate, serious, severe 15, severe 17, and extreme.

Pursuant to the 1977 CAA amendments, states (or areas within states) with ambient air quality concentrations that do not meet the NAAQS are required to develop and maintain State Implementation

<sup>30</sup> Attainment Area: A geographic area considered to have air quality as good as or better than the national and/or State ambient air quality standards (NAAQS and CAAQS, respectively) (USEPA, 2006).

<sup>31</sup> Nonattainment Area: A geographic area identified by the USEPA and/or ARB as not meeting either NAAQS or CAAQS standards for a given pollutant (ARB, 2010).

<sup>32</sup> Unclassified Area: A geographic area that lacks monitoring data.

Plans (SIPs). The SIPs constitute a federally enforceable definition of the State's approach and schedule for the attainment of the NAAQS.

Finally, areas that were designated as nonattainment in the past but have since achieved the NAAQS are further classified as attainment maintenance areas. The maintenance classification remains in effect for 20 years from the date when the area is determined by the USEPA to meet the NAAQS. States must obtain USEPA approval of maintenance plans to ensure continued attainment over these 20-year time frames.

#### **4.20.1.3 Federal General Conformity Requirements**

The 1977 CAA amendments state that the federal government is prohibited from engaging in, supporting, providing financial assistance for, licensing, permitting, or approving any activity that does not conform to an applicable SIP. In the 1990 CAA amendments, the USEPA included provisions requiring federal agencies to ensure that actions undertaken in nonattainment or attainment maintenance areas are consistent with applicable SIPs. The process of determining whether a federal action is consistent with applicable SIPs is called "conformity" determination.

These conformity provisions were put in place to ensure that federal agencies would contribute to and not undermine efforts to attain the NAAQS. The USEPA has issued two conformity regulations: (1) a transportation conformity regulation that applies to transportation plans, programs, and projects and (2) a general conformity regulation that applies to all other federal actions. A conformity determination is a process that demonstrates how an action would conform to the applicable SIP, and is required only for the project alternative that is ultimately selected and approved. If the emissions cannot be reduced sufficiently and if air dispersion modeling cannot demonstrate conformity, then either a plan for mitigating or a plan for offsetting the emissions would need to be pursued. The general conformity determination is submitted in the form of a written finding that is issued after a minimum 30-day public comment period on the draft determination.

The USEPA general conformity regulation applies only to federal actions that result in emissions of "nonattainment or maintenance pollutants" or their precursors in federally-designated nonattainment or maintenance areas<sup>33</sup>. The general conformity regulation establishes a process to demonstrate that federal actions would be consistent with applicable SIPs and would not cause or contribute to new violations of the NAAQS, increase the frequency or severity of existing violations of the NAAQS, or delay the timely attainment of the NAAQS. The emission thresholds that trigger requirements of the general conformity regulation for federal actions emitting nonattainment or maintenance pollutants, or their precursors, are called *de minimis* levels.

#### **4.20.1.4 Prevention of Significant Deterioration/New Source Review and New Source Performance Standards**

The CAA and amendments also include regulations intended to prevent significant deterioration of air quality in attainment or maintenance areas, to provide for New Source Review (NSR) of major sources and modifications in nonattainment areas, and to establish emission performance standards for new stationary sources or new source performance standards (NSPS). Federal Prevention of Significant Deterioration (PSD)/NSR regulations apply to major (generally very large) stationary sources of emissions. NSPS apply to various types of new, modified, or reconstructed emissions units, and apply to

<sup>33</sup> The federal general conformity regulation does not apply to federal actions in areas designated as nonattainment for only the California ambient air quality standards.

such units regardless of whether these units are located at facilities that are “major” sources of emissions for PSD/NSR purposes.

#### **4.20.1.5 Federal Regulations for Hazardous Air Pollutants**

Hazardous Air Pollutants (HAPs) are defined as air pollutants that may cause serious human health effects, including mortality, but which are not regulated through issuance of a national ambient air quality standard.

The USEPA has developed regulations to evaluate and, if necessary, mitigate HAPs emissions sources. Prior to the 1990 CAA amendments, the USEPA established pollutant-specific National Emission Standards for Hazardous Air Pollutants (NESHAPs). NESHAPs were established for benzene, vinyl chloride, radionuclides, mercury, asbestos, beryllium, inorganic arsenic, radon 222, and coke oven emissions. The 1990 CAA amendments list 189 total pollutants that are defined as HAPs. For this list of pollutants, the USEPA is required to set standards for categories and subcategories of sources that emit HAPs, rather than for the pollutants themselves. The USEPA began issuing the new standards, referred to as Maximum Achievable Control Technology (MACT) standards, in November 1994. NESHAPs set before 1991 remain applicable.

The applicability of MACT standards is typically determined by each facility’s Potential To Emit (PTE) HAPs from all applicable sources. The facility-wide PTE HAP applicability threshold values are 10 tons per year (tpy) for a single HAP and 25 tpy for any two or more HAPs.

#### **4.20.1.6 Federal Standards for Mobile Sources**

The USEPA’s Office of Transportation and Air Quality regulates air pollution from motor vehicles and engines and the fuels used to operate them. The USEPA defines “mobile sources” to include cars, light-duty trucks, heavy-duty trucks, buses, recreational vehicles (such as dirt bikes and snowmobiles), farm and construction machines, lawn and garden equipment, marine engines, aircraft, and locomotives.

Starting in the 1970s, The USEPA has established progressively more stringent standards for CO, hydrocarbons (HCs), NO<sub>x</sub>, and PM emissions from on-road vehicles. Since the early 1990s, the USEPA has developed similar standards for non-road engines and equipment, and also set tighter limits on sulfur allowed in fuels used for mobile sources. Emission standards set limits on the amount of pollution a vehicle or engine can emit, and are designed to force future vehicles and engines to meet stricter standards.

### **4.20.2 State Plans, Policies, and Regulations**

#### **4.20.2.1 California Clean Air Act**

California air quality policies are regulated through the California Clean Air Act (CCAA) of 1988. The CCAA provides the State with a comprehensive framework for air quality planning regulation. Prior to passage of the Act, federal law contained the only comprehensive planning framework.

#### **4.20.2.2 Mulford-Carrell Act**

This 1967 act established the ARB. The ARB’s mission is to promote and protect public health, welfare, and ecological resources through improved air quality. The ARB oversees the activities of local and regional air quality districts.

#### **4.20.2.3 California Ambient Air Quality Standards and State Air Quality Designations**

The ARB administers air quality policy in California, establishes statewide standards, and administers the State's mobile-source emissions control program, which is described below. In addition, the ARB oversees air quality programs established by State statute, and oversees programs to achieve the California Ambient Air Quality Standards (CAAQS). These standards are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility-reducing particulates, hydrogen sulfide, and sulfates. The CAAQS for these pollutants are provided in Chapter 24 Air Quality.

#### **4.20.2.4 State Implementation Plans**

Federal clean air laws require nonattainment areas with unhealthy levels of criteria air pollutants to develop SIPs to detail actions that will be undertaken to achieve the NAAQS. In addition, the CCAA requires local air districts in nonattainment areas of the State to prepare and maintain Air Quality Management Plans (AQMPs) to achieve compliance with CAAQS. These AQMPs also serve as a basis for preparing the SIP for the State of California, which must ultimately be approved by the USEPA and codified in the CFR.

SIPs are a compilation of new and previously submitted plans, programs (such as monitoring, modeling, and permitting), district rules, State regulations, and federal control requirements. Many of California's SIPs rely on the same core set of control strategies, including emission standards for cars and heavy trucks, fuel standards and requirements, and limits on emissions from consumer products. State law establishes the ARB as the lead agency for all purposes related to the SIP. Local air districts and other agencies, such as the Bureau of Automotive Repair, prepare SIP elements and submit them to ARB for review and approval. The ARB forwards SIP revisions to the USEPA for approval and publication in the Federal Register. The CFR Title 40, Chapter I, Part 52, Subpart F, Section 52.220 lists all of the items included in the California SIP. The promulgation of the new national 8-hour O<sub>3</sub> standard and PM<sub>2.5</sub> standards has resulted in additional statewide air quality planning efforts. The California Regional Haze Plan has been drafted to reduce regional haze and improve visibility in national parks and wilderness areas. Many additional California SIP submittals are pending USEPA approval.

In addition to the SIPs aimed at attainment of the NAAQS, the CCAA requires nonattainment areas to achieve and maintain the CAAQS by the earliest practicable date. Local air districts must develop plans to attain the State O<sub>3</sub>, CO, SO<sub>2</sub>, and NO<sub>2</sub> standards. The CCAA also requires that, by the end of 1994 and once every three years thereafter, the local air districts must assess their progress toward attaining the air quality standards. The triennial assessment is to report the extent of air quality improvement and the amounts of emission reductions achieved from control measures for the preceding three-year period. The districts must review and revise their attainment plans, if necessary, to correct for deficiencies in meeting progress, incorporate new data or projections, mitigate O<sub>3</sub> transport, and expedite adoption of all feasible control measures. In addition to the triennial progress assessment requirement, local air districts must prepare an annual progress report and submit the report to the ARB by December 31 of each year. At a minimum, the annual progress report contains the proposed and actual dates for the adoption and implementation of each measure listed in the previous three-year plan.

#### **4.20.2.5 California Air Toxics Programs**

In addition to the criteria pollutants, concern about non-criteria pollutants has increased in recent years. AB 1807 (the Tanner Bill, passed in 1983) established the California Air Toxics Program for identifying



and developing emissions control and reduction methods for toxic air contaminants (TACs). The bill formally designated 18 substances as TACs. In 1993, the 189 HAPs identified by the USEPA were incorporated into California law as TACs. Other pollutants have been added more recently, such as particulate emissions from diesel-fueled engines (diesel PM), designated by California as a carcinogen. The California Air Toxics Program also includes provisions for public awareness and risk reduction.

Local agencies, such as air districts, are responsible for evaluating and controlling TAC emissions, especially when these emissions are released from projects near sensitive receptors. For example, AB 3205 requires that new or modified sources of TACs near schools provide public notice to the parents of school children before a permit to emit air pollutants is issued. One air toxics control measure adopted by the ARB in 2004 prohibited operation of diesel-fueled backup engines within 500 feet of a school during school hours, unless used in an emergency.

The Air Toxics “Hot Spots” Information and Assessment Act was enacted in September 1987. The act requires that toxic air emissions from stationary sources (facilities) be quantified and compiled into an inventory, that risk assessments be conducted according to methods developed by the California Office of Environmental Health Hazard Assessment (OEHHA), and that the public be notified of significant risks posed by nearby facilities. Since the amendment of the statute in 1992 by enactment of SB 1731, facilities that pose a potentially significant health risk to the public are required to reduce their risks.

#### **4.20.2.6 California Mobile-Source Emission Control Programs**

The ARB is responsible for developing statewide programs and strategies to reduce the emission of smog-forming pollutants and TACs by mobile sources. To attain the CAAQS, the CCAA mandates that the ARB achieve the maximum degree of emission reductions from all on- and off-road mobile sources. On-road sources include passenger cars, motorcycles, trucks, and buses; off-road sources include heavy-duty construction equipment, recreational vehicles, marine vessels, lawn and garden equipment, and small utility engines. On-road vehicle emission control programs overseen by the ARB include:

- Vehicle inspections
- Idling restrictions
- Regulations to require clean vehicle fleets
- Voluntary vehicle retirement programs
- Engine emissions standards

Additionally, exhaust emission standards have been adopted by the ARB and USEPA for off-road engines. ARB has extensive statewide programs underway to reduce particulate emissions from diesel-fueled engines, also known as diesel PM.

#### **4.20.3 Regional and Local Plans, Policies, and Regulations**

In California, air districts have been established to oversee the attainment of air quality standards within air basins as defined by the State. Each local air district has developed its own program and regulations to attain and maintain air quality standards while integrating federal and State requirements. The local air districts have permitting authority over all stationary sources of air pollutants within their district boundaries and provide the primary review of environmental documents prepared for projects with air quality issues. In many cases, the local air districts have established CEQA guidelines and significance thresholds for review of air-quality related impacts.



This section briefly describes applicable local air district rules and regulations, regional SIP and AQMP submittals, CEQA guidance documents, and air quality elements of General Plans for counties and cities in Glenn and Colusa counties.

#### **4.20.3.1 Regional and Local Air Quality Management Plans**

The Air Pollution Control Districts and Air Quality Management Districts for the counties located in the northern portion of the Sacramento Valley comprise the Northern Sacramento Valley Planning Area (NSVPA). The NSVPA Districts have jointly prepared and adopted a uniform AQMP for the purpose of achieving and maintaining healthful air quality throughout the air basin. The 2009 triennial update of the NSVPA Air Quality Attainment Plan (Plan) addresses the progress made in implementing the 2006 Plan and proposes modifications to the strategies necessary to attain the 1-hour ozone CAAQS at the earliest practicable date.

The 2009 Plan identifies those portions of the NSVPA designated as “non-attainment” for the CAAQS, and discusses the health effects related to the various air pollutants. All of the NSVPA Districts have been designated as non-attainment areas for the CAAQS for PM<sub>10</sub>. Moreover, all of the Districts, with the exception of Colusa and Glenn counties, have been designated as non-attainment areas for the State standard for ozone. Colusa and Glenn counties have been designated as non-attainment transitional areas for ozone. Similar to the 1994, 1997, 2000, 2003 and 2006 Plans, the 2009 Plan focuses on the adoption and implementation of control measures for stationary sources, area-wide sources, and indirect sources, and addresses public education and information programs. The 2009 Plan also addresses the effect that pollutant transport has on the ability of the NSVPA to meet and attain the CAAQS.

According to the 2009 Triennial Plan, ozone violations in the NSVPA are caused, in part, by combustion sources and are occasionally influenced by smoke impacts from wildfires. The primary emission source is the internal combustion engine. The ozone problem is further aggravated by transport from the Broader Sacramento Area (BSA), which is comprised of Sacramento County and portions of El Dorado, Placer, Sutter, and Yolo counties. Ozone is formed by a photochemical reaction between nitrogen oxides and reactive organic gases. These ozone precursors are emitted as part of the exhaust of internal combustion engines in the NSVPA and BSA, and are transported northward via the prevailing winds. Due to the regional nature of the ozone problem and the fact that the NSVPA counties share the same air basin with BSA, the Attainment Plan is prepared in conjunction with the Sacramento Valley Air Quality Engineering and Enforcement Professionals and the Sacramento Valley Air Basin-wide Air Pollution Control Council’s Technical Advisory Committee.

The CCAA requires each District in which a CAAQS for ozone is exceeded to develop a plan and an emission control program to attain the State standard. The CCAA recognizes that ozone and ozone precursors can be transported by winds over long distances and thereby contribute to air quality problems outside of the District or air basin of origination. To address this, the CCAA requires upwind Districts to mitigate the impacts to downwind areas by pollutants that are originally emitted in the upwind Districts, even though the downwind District may have a shared or sole responsibility for air quality impacts. The CCAA directs the ARB to assess the impacts of such transport and to establish mitigation requirements for upwind Districts.

For transport mitigation, the CCAA requires that Districts within the areas of origin of transported air pollutants must include sufficient emission control measures in their ozone Attainment Plans to mitigate the impacts of their jurisdictional pollution sources on ozone concentrations in downwind areas. At a

minimum, the Attainment Plans for Districts within the BSA must require the adoption and implementation of best available retrofit control technology on all existing stationary sources of ozone precursor emissions, as expeditiously as practicable. The plans must include measures sufficient to attain the State ambient air quality standard for ozone by the earliest practicable date, except during air pollution episodes. Implementation of these requirements will be through the BSA Districts' Attainment Plans.

#### **4.20.3.2 Local Air District CEQA Guidance Documents Pertaining to Air Quality**

Local air agencies may publish CEQA guidelines to assist local jurisdictions and lead agencies in complying with the requirements of CEQA regarding potentially adverse impacts to air quality. CEQA guidelines may or may not include thresholds of significance. Guidelines may provide useful information for calculating air pollution emissions, evaluating the health impacts of air pollutants, and identifying potential mitigation measures.

Air districts are required to develop and enforce local rules and regulations to attain and maintain healthful air within their jurisdiction. In past years, air districts were primarily concerned with emissions of criteria air pollutants, ozone precursors, odors, and toxic air contaminants.

The Glenn County Air Pollution Control District (GCAPCD) and the Colusa County Air Pollution Control District (CCAPCD) have developed plans and regulations to attain and maintain air quality standards while integrating federal and State requirements. For example, each of the agencies has developed regulations to cover new source review and permitting of stationary sources, agricultural burning, airborne toxic control measures, and federal operating permits.

The GCAPCD does not have CEQA guidelines; GCAPCD indicated that they would defer to the Butte County guidelines, if necessary, when reviewing the proposed Project. The Butte County AQMD published its CEQA Air Quality Handbook *Guidelines for Assessing Air Quality Impacts for Projects Subject to CEQA Review* in 2008. The CCAPCD also does not have CEQA guidelines, other than its New Source Review rules, and suggested that thresholds developed by the Tehama County Air Pollution Control District (TCAPCD) would represent similar values. Review of the Butte County and Tehama County thresholds indicates that they are the same values.

#### **4.20.3.3 Glenn County and Colusa County General Plans**

Glenn and Colusa counties have developed General Plans that include air quality policies. The 1993 Glenn County General Plan Update includes provisions to reduce air pollutant emissions, but the Draft EIR for the Update acknowledges that in nonattainment air basins, any emissions of nonattainment pollutants by new developments are considered to be a significant air quality effect, both directly and cumulatively. The Draft EIR indicates that many or most of the development projects that would be considered pursuant to the General Plan would potentially result in emissions of ozone precursors, which are associated with vehicular traffic, and PM<sub>10</sub>, which can be emitted by construction activities, wood-burning appliances, yard burning, and incineration. The General Plan is intended to be compatible with the goals and policies of the local Air Quality Attainment Plan. Policies and implementation measures are included in the General Plan that require projects to incorporate all feasible emissions control measures, as specified in the Attainment Plan.

The 2012 Colusa County General Plan includes policies and action programs aimed at preserving air quality as part of the Conservation Element. The recommended measures include ongoing oversight by the CCAPCD for air monitoring, enforcement of local, State, and federal air quality rules, health risk

assessment and mitigation of air toxics, and mitigation of significant impacts to the maximum extent feasible. The General Plan requires a compact development pattern to reduce vehicle trips and promote alternative transportation methods, and requires projects to mitigate significant air quality impacts associated with construction and operation.

## **4.21 Chapter 25: Climate Change and Greenhouse Gas Emissions**

### **4.21.1 Federal Plans, Policies, and Regulations**

#### **4.21.1.1 Draft National Environmental Policy Act Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions**

The DOI has considered the issue of climate change in a manner consistent with other federal agencies, and discusses how to address and integrate the topic into NEPA documents. DOI recommends that agencies consider two ways to address climate change in NEPA documents, which are not mutually exclusive: (1) address the effect of climate change on proposed federal actions, and (2) evaluate how proposed federal actions (either individually or cumulatively) would affect climate change.

Agencies can use the NEPA process to reduce vulnerability to climate change impacts, adapt to changes in our environment, and mitigate the impacts of federal agency actions that are exacerbated by climate change.

This CEQ guidance document advises federal agencies that they should consider opportunities to reduce greenhouse gas (GHG) emissions caused by proposed federal actions and adapt their actions to climate change impacts through the NEPA process and to address these issues in their agency NEPA procedures. The document recommends a standard of 25,000 metric tons/year carbon dioxide equivalent (CO<sub>2</sub>e) as GHG emissions. CEQ does not propose this standard as the threshold for significance, but rather as an indicator of the minimum level of GHG requiring NEPA analyses.

#### **4.21.1.2 Greenhouse Gas Reporting Rule**

In response to the fiscal year (FY) 2008 Consolidated Appropriations Act<sup>34</sup> which required the USEPA to develop "...mandatory reporting of greenhouse gases above appropriate thresholds in all sectors of the economy....", the USEPA issued the Greenhouse Gas Reporting Rule (74 FR 56260). The rule went into effect January 1, 2010, and requires reporting of greenhouse gas (GHG) data and other relevant information from large sources and suppliers in the United States. The GHG Reporting Rule applies to fossil fuel and industrial GHG suppliers, vehicle and engine manufacturers, and all facilities that emit 25,000 metric tons of CO<sub>2</sub>e or more per year. Facility owners are required to submit an annual GHG emissions report with detailed calculations of facility GHG emissions. The GHG Reporting Rule also mandates recordkeeping and administrative requirements in order for the USEPA to verify annual GHG emissions reports.

#### **4.21.1.3 Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act**

The USEPA Administrator signed the Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act on December 7, 2009, and the final rule became effective on January 14, 2010. The Endangerment Finding is based on Section 202(a) of the CAA, which

<sup>34</sup> Appropriates funds for FY2012 for military activities including, but not limited to: military personnel, operations and maintenance, procurement, research and development, and other related agencies and defense programs.

states that the USEPA Administrator should regulate and develop standards for “emission[s] of air pollution from any class or classes of new motor vehicles or new motor vehicle engines, which in [its] judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare.” The rule addresses Section 202(a) in two distinct findings. The first addresses whether or not the concentrations of the six key GHGs (i.e., CO<sub>2</sub>, methane [CH<sub>4</sub>], nitrous oxide [N<sub>2</sub>O], hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF<sub>6</sub>]) in the atmosphere which threaten the public health and welfare of current and future generations. The second addresses whether or not the combined emissions of GHGs from new motor vehicles and motor vehicle engines contribute to atmospheric concentrations of GHGs, and therefore, to the threat of climate change.

The observed and projected results of climate change (e.g., higher likelihood of heat waves, wildfires, droughts, sea level rise, and higher intensity storms) are a threat to the public health and welfare. Therefore, GHGs were found to endanger the public health and welfare of current and future generations.

The finding cites that in 2006, motor vehicles were the second largest contributor to domestic GHG emissions (24 percent of total) behind electricity generation. In 2005, the United States was responsible for 18 percent of global GHG emissions.

Although the Endangerment Finding does not directly establish reduction goals or mandates for GHG emissions, the finding would obligate the USEPA to establish GHG emission standards for new motor vehicles, motor vehicle engines, and potential stationary sources (such as bioenergy production facilities) pursuant to the CAA. Any potential GHG emission standards resulting from the Endangerment Finding would be relevant to the GHG emission sources associated with proposed Project operations.

## **4.21.2 State Plans, Policies, and Regulations**

### **4.21.2.1 California Environmental Quality Act Guidelines**

CEQA requires lead agencies to consider the reasonably foreseeable adverse environmental effects of projects they are considering for approval.

In January 2009, OPR released preliminary draft CEQA Guidelines Amendments for GHGs consistent with the authority granted by CEQA and with CEQA case law. OPR’s recommendations for GHGs in the Guidelines Amendments fall within the existing CEQA framework for environmental analysis, which calls for lead agencies to determine baseline conditions and levels of significance, and to evaluate mitigation measures. For these reasons, OPR neither identifies a threshold of significance for GHG emissions nor prescribes assessment methodologies or specific mitigation measures. The Guidelines Amendments also encourage lead agencies to consider many factors in performing a CEQA analysis, but to preserve the discretion that CEQA grants lead agencies to make their own determinations based on substantial evidence. The Guidelines Amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses.

### **4.21.2.2 Senate Bill 97**

SB 97 required OPR, by July 1, 2009, to prepare, develop, and transmit to the Resources Agency (now called the Natural Resources Agency), guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, including but not limited to, effects associated with transportation or energy consumption. The Natural Resources Agency was required to certify and adopt

those guidelines by January 1, 2010<sup>35</sup>, and OPR is required to periodically update the guidelines to incorporate new information or criteria established by ARB pursuant to AB 32.

On December 30, 2009, the California Natural Resources Agency adopted amended guidelines to aid public agencies and developers in complying with CEQA. The guidelines expressly require that GHG emissions be included in the environmental impact analysis under CEQA.

#### **4.21.2.3 Governor's Office of Planning and Research Technical Advisory on CEQA and Climate Change**

In response to the requirements of SB 97, OPR released a technical advisory in June 2008 to provide interim advice to lead agencies regarding the analysis of GHGs in environmental documents. The advisory encourages lead agencies to identify and quantify the GHGs that could result from a proposed project, analyze the impacts of those emissions to determine whether they would be significant, and to identify feasible mitigation measures or alternatives that would reduce any adverse impacts to a less-than-significant level.

Without prescribing specific approaches, the advisory identified several methodologies for estimating project emissions and provided examples of mitigation measures that lead agencies could employ to reduce those emissions.

A consistent approach should be applied for the analysis of all such projects, and the analysis must be based on best available information. For these projects, compliance with CEQA entails three basic steps:

- Identify and quantify the GHG emissions
- Assess the significance of the impact on climate change
- If the impact is found to be significant, identify alternatives and/or mitigation measures that will reduce the impact below significance

The advisory discussed alternative project designs and locations that conserve energy and water, measures that reduce vehicle miles traveled by fossil-fueled vehicles, measures that contribute to established regional or programmatic mitigation strategies, and measures that sequester carbon to offset emissions from the project. The advisory recognized that mitigating GHGs at a project level may not be as effective as implementing a programmatic approach to mitigation. This approach requires public agencies to adopt a program of mitigation measures that apply broadly within the agency's jurisdiction, and are implemented at the project level when CEQA review is required.

#### **4.21.2.4 Executive Order S-3-05**

EO S-3-05 includes the following GHG reduction targets for California: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels. The final emission target of 80 percent below 1990 levels would put the State's emissions in line with estimates of the required worldwide reductions needed to bring about long-term climate stabilization and avoidance of the most severe impacts of climate change.

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<sup>35</sup> As directed by SB97, the Natural Resources Agency adopted Amendments to the CEQA Guidelines for GHG emissions on December 30, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the CCR. The Amendments became effective on March 18, 2010.



#### **4.21.2.5 California Renewables Portfolio Standard Program**

Established in 2002 pursuant to SB 1078 (required 20 percent renewable energy by 2017), accelerated in 2006 pursuant to SB 107 (accelerated 20 percent deadline to 2010), and expanded in 2011 pursuant to SB 2 (increased requirement to 33 percent by 2020), California's Renewables Portfolio Standard program requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020.

#### **4.21.2.6 Assembly Bill 32 (California Global Warming Solutions Act of 2006)**

AB 32, the California Global Warming Solutions Act of 2006, places caps on statewide GHG emissions equal to 1990 emissions levels. The statute requires that prior to January 1, 2008, ARB must: (1) identify the current level of GHG emissions by requiring statewide reporting and verification of GHG emissions from emitters; and (2) identify the 1990 levels of California GHG emissions. Pending these regulations, by June 30, 2007, ARB must publish a list of early-action GHG emission reduction measures and by January 1, 2010, must adopt regulations to implement those early-action measures. As of 2012, the ARB reported that these goals have been met and the State is on track to reach its 2020 goal. The 2020 goal is to attain 1990 emission levels (427 million metric tons [MMT] of CO<sub>2</sub>e of GHGs).

#### **4.21.2.7 Senate Bill 1368**

SB 1368 requires the California Energy Commission (CEC) and the California Public Utilities Commission (CPUC), in consultation with ARB, to set performance standards for climate change pollutant emissions resulting from electric generation for long-term procurement by investor-owned and local publicly-owned utilities. This bill applies to individual utilities and requires compliance when funding new, or rehabilitating older, power generation facilities.

#### **4.21.2.8 Executive Order S-1-07**

EO S-1-07 requires that carbon intensity of transportation fuels be reduced by at least 10 percent by 2020. This mandates that ARB establish and certify such standards, including biennial reports on the goal progress.

#### **4.21.2.9 Executive Order S-13-08**

EO S-13-08 required the Natural Resources Agency<sup>36</sup> to conduct public workshops on sea level rise and requested that the National Academy of Sciences (NAS) complete a California Sea Level Rise Assessment Report. This EO dictates that the California Ocean Protection Council shall work with DWR, the CEC, California's coastal management agencies, and the SWRCB to conduct a review of the NAS assessment every two years, or as necessary.

#### **4.21.2.10 Senate Bill 1771**

SB 1771 requires that the nonprofit public benefit corporation known as the California Climate Action Registry administer a voluntary GHG emissions registry. CEC is required to provide technical guidance to the Registry on protocol development and to periodically update the State's inventory of GHG emissions, as well as serve as an information clearinghouse on climate change issues. The Registry consists of organizations that are actively reducing their GHG emissions.

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<sup>36</sup> Includes the California Conservation Corps, the Department of Boating and Waterways, the Department of Conservation, CDFG, the Department of Forestry and Fire Protection, the Department of Parks and Recreation, the Department of Resources Recycling and Recovery, and DWR.



#### **4.21.2.11 Climate Change Scoping Plan**

In October 2008, ARB published the Climate Change Proposed Scoping Plan (CCPSP), which is the State's plan to achieve GHG reductions in California, as required by AB 32. The CCPSP was approved by ARB on December 11, 2008. The CCPSP contains the main strategies California will implement to achieve a reduction of approximately 169 MMT (approximately 30 percent) in CO<sub>2</sub>e emissions, relative to the State's projected 2020 emissions level of 596 MMT of CO<sub>2</sub>e under a business-as-usual scenario. The CCPSP includes ARB-recommended GHG reductions for each emissions sector of the State's GHG inventory. The largest recommended GHG reductions are:

- Improved emissions standards for light-duty vehicles (estimated reductions of 31.7 MMT of CO<sub>2</sub>e)
- Implementation of the low-carbon fuel standard (15.0 MMT of CO<sub>2</sub>e)
- Implementation of energy efficiency measures in buildings and appliances, and the widespread development of combined heat and power systems (26.3 MMT of CO<sub>2</sub>e)
- A renewable portfolio standard for electricity production (21.3 MMT of CO<sub>2</sub>e)

#### **4.21.2.12 California Climate Change Adaptation Strategy**

The 2009 California Climate Adaptation Strategy report summarizes the best known science on climate change impacts (public health, biodiversity and habitat, ocean and coastal resources, water management, agriculture; forestry, and transportation and energy infrastructure) in the state to assess vulnerability and outlines possible solutions that can be implemented within and across State agencies to promote resiliency.

#### **4.21.2.13 California Cap and Trade Program**

The Cap and Trade Program is a market-based regulation that sets a firm statewide limit on sources responsible for 85 percent of California's GHG emissions, and establishes a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. The program is designed to provide covered entities the flexibility to seek out and implement the lowest-cost options to reduce emissions. California's Cap-and-Trade Regulation took effect on January 1, 2012, with amendments to the regulation effective September 1, 2012. The enforceable compliance obligation began on January 1, 2013.

#### **4.21.2.14 Climate Action Plan Phase 1: Greenhouse Gas Emissions Reduction Plan**

DWR developed a GHG Emissions Reduction Plan to guide its project development and decision making with respect to energy use and GHG emissions. The Plan details DWR's future plans for reducing GHG emissions consistent with the GHG emissions reduction targets established in AB 32, EO S-3-05, and DWR's own policies; the aggressive steps DWR will take to reduce its emissions by more than 80 percent below 1990 levels; and the steps that DWR will take to monitor its progress toward achieving these reductions. The Plan shows how DWR will achieve its near-term goal of reduced emissions by 50 percent below 1990 levels by 2020, and how DWR will achieve its long-term goal of reduced emissions by 80 percent below 1990 levels by 2050.

#### **4.21.2.15 California Air Pollution Control Officers Association Guidance Documents on Addressing GHGs under CEQA and Quantifying GHG Mitigation Measures**

The California Air Pollution Control Officers Association has prepared two reports intended as a resource for public agencies to address GHG emissions pursuant to CEQA and to quantify greenhouse gas mitigation measures. The reports are titled "CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas

Emissions from Projects Subject to the California Environmental Quality Act, January 2008” and “Quantifying Greenhouse Gas Mitigation Measures, August 2010.” These reports consider the application of thresholds and offer three alternative programmatic approaches toward determining whether GHG emissions are significant. These reports also evaluate tools and methodologies for estimating impacts and summarizing mitigation measures. They have been prepared with the understanding that the programs, regulations, policies, and procedures established by the ARB and other agencies to reduce GHG emissions may ultimately result in a different approach pursuant to CEQA than the strategies considered in these reports.

#### **4.21.3 Regional and Local Plans, Policies, and Regulations**

The following local regulation is applicable to climate change and greenhouse gases, but is discussed in another section of this chapter, as indicated in parentheses:

- Regional and Local Air Quality Management Plans (Air Quality)

### **4.22 Chapter 26: Navigation, Transportation, and Traffic**

#### **4.22.1 Federal Plans, Policies, and Regulations**

The following federal regulations are applicable to navigation, transportation, and traffic, but are discussed in other sections of this chapter, as indicated in parentheses:

- National Environmental Policy Act (General)
- Rivers and Harbors Act of 1899 (Surface Water Quality)

#### **4.22.2 State Plans, Policies, and Regulations**

The following State regulation is applicable to navigation, transportation, and traffic, but is discussed in other sections of this chapter, as indicated in parentheses:

- California Environmental Quality Act (General)

##### **4.22.2.1 California Department of Transportation Regulatory Authority over the California State Highway System**

The California Department of Transportation (Caltrans) has regulatory authority over the State highway system. Additionally, as part of a pilot program established by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, Caltrans and FHWA have entered into a Memorandum of Understanding (MOU) in which certain authority pursuant to NEPA has been delegated to Caltrans in connection with the delivery of transportation projects. This MOU may apply to any potential effects to the State highway system from the proposed Project.

#### **4.22.3 Regional and Local Plans, Policies, and Regulations**

The following regulations are applicable to navigation, transportation, and traffic, but are discussed in other sections of this chapter, as indicated in parentheses:

- Glenn County General Plan (General)
- Colusa County General Plan (General)

## **4.23 Chapter 27: Noise**

### **4.23.1 Federal Plans, Policies, and Regulations**

#### **4.23.1.1 Federal Guidance for Environmental Noise and Regulations for Specific Sources**

Although no federal regulations limit overall environmental noise levels, federal guidance is provided by several federal agencies for specific sources (for example, aircraft or federally funded highways). The following federal agencies have such guidance: the Federal Energy Regulatory Commission (FERC), Federal Transit Administration, Federal Railroad Administration, FHWA, Federal Aviation Administration, USEPA, and the U.S. Department of Housing and Urban Development.

### **4.23.2 State Plans, Policies, and Regulations**

#### **4.23.2.1 California Noise Control Act of 1973**

The California Noise Control Act of 1973 (Health and Safety Code §46000 to 46080) states that the Office of Noise Control should provide assistance to local communities in developing local noise control programs, and that the Office of Noise Control staff would also work with the OPR to provide guidance for the preparation of the required Noise Elements in city and county General Plans, pursuant to Government Code §65302(f). In preparing the Noise Element, a city or county must identify local noise sources and analyze and quantify, to the extent practicable, current and projected noise levels for various sources, including highways and freeways; passenger and freight railroad operations; ground rapid transit systems; commercial, general, and military aviation and airport operations; and other ground stationary noise sources. California Administrative Code, Title 4, has guidelines for evaluating the compatibility of various land uses as a function of community noise exposure.

#### **4.23.2.2 Department of Water Resources Specification 05-16**

Section 15070 of DWR Specification 05-16 suggests the following guidelines for DWR construction projects: Where ambient noise levels are less than 60 dBA and it is determined that construction related noise will cause noise levels to exceed 60 dBA, or where the ambient noise levels are greater than 60 dBA and it is determined that construction related noise will cause noise levels to exceed the ambient level by 5 dBA, a temporary sound wall shall be constructed between the sensitive area and the construction related noise source. The 60 dBA limit is not a regulatory requirement.

#### **4.23.2.3 California Administrative Code Title 4**

California Administrative Code Title 4 has guidelines for evaluating the compatibility of various land uses as a function of community noise exposure.

#### **4.23.2.4 California Government Code §65302(f)**

California Government Code §65302(f) requires City and County General Plans to include a Noise Element. The purpose of a Noise Element is to guide future development to enhance future land use compatibility.

### **4.23.3 Regional and Local Plans, Policies, and Regulations**

The following local regulations are applicable to noise, but are discussed in other sections of this chapter, as indicated in parentheses:

- Tehama County General Plan (Land Use)
- Glenn County General Plan (General)
- Colusa County General Plan (General)

## **4.24 Chapter 28: Public Health and Environmental Hazards**

### **4.24.1 Federal Agencies Responsible for Regulating Water Quality**

The USEPA provides guidance and oversight to the State of California in regulating water quality, as it does for other states and tribes. The USEPA delegates authorities for establishing water standards and regulating controllable factors affecting water quality in the State. In California, this authority is delegated to the SWRCB. The SWRCB, in turn, delegates authority to its nine RWQCBs to implement the State's water quality management responsibilities in the nine geographic regions. Although the State generally takes the lead on developing and adopting water quality standards for California, the USEPA must approve new or modified standards. Thus, the USEPA, SWRCB, and the RWQCBs have worked together to establish existing water quality criteria/objectives and beneficial uses.

### **4.24.2 Federal Plans, Policies, and Regulations**

The following federal regulations are applicable to public health and environmental hazards, but are discussed in other sections of this chapter, as indicated in parentheses:

- Clean Water Act (Surface Water Resources)
- Comprehensive Environmental Response, Compensation, and Liability Act (Surface Water Quality)
- Federal Insecticide, Fungicide, and Rodenticide Act (Surface Water Quality)
- Safe Drinking Water Act (Surface Water Quality)

#### **4.24.2.1 Hazardous Materials Transportation Act of 1975**

The objective of the Hazardous Materials Transportation Act is to improve the regulatory and enforcement authority of the Secretary of Transportation to protect the Nation adequately against risks to life and property which are inherent in the transportation of hazardous materials in commerce. The Act empowered the Secretary of Transportation to designate as hazardous material any particular quantity or form of a material that may pose an unreasonable risk to health and safety or property.

Regulations apply to any person who transports, or causes to be transported or shipped, a hazardous material; or who manufactures, fabricates, marks, maintains, reconditions, repairs, or tests a package or container which is represented, marked, certified, or sold by such person for use in the transportation in commerce of certain hazardous materials.

#### **4.24.2.2 Resource Conservation and Recovery Act, as Amended**

The Resource Conservation and Recovery Act (RCRA) provides the USEPA with the authority to control hazardous waste from cradle-to-grave. This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. The 1984 Federal Hazardous and Solid Waste Amendments to the RCRA focus on waste minimization and phasing out land disposal of hazardous waste, as well as

corrective action for releases. Other mandates of this law include increased enforcement authority for the USEPA, more stringent hazardous waste management standards, and a comprehensive Underground Storage Tank Program. The 1986 RCRA amendments enabled the USEPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. The RCRA also set forth a framework for the management of non-hazardous solid wastes. RCRA §3006 provides the USEPA with the authority to authorize State hazardous waste programs. Once authorized, the State program operates in lieu of the federal program, although the USEPA retains enforcement authority even after a State program has been authorized.

#### **4.24.2.3 Toxic Substances Control Act**

The Toxic Substances Control Act of 1976 gives the USEPA authority to require reporting, recordkeeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. The Act addresses the production, import, use, and disposal of specific chemicals including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint.

#### **4.24.3 State Plans, Policies, and Regulations**

The following State regulation is applicable to public health and environmental hazards, but is discussed in another section of this chapter, as indicated in parentheses:

- California Safe Drinking Water Act (Surface Water Quality)

#### **4.24.3.1 California Hazardous Substance Account Act of 1999**

The California equivalent to CERCLA, the California Hazardous Substance Account Act, was adopted in 1999 and is codified in Division 20 of the Health and Safety Code, Chapter 6.8. It requires past and present owners and operators to assume liability for the remediation of hazardous waste sites within the State of California.

The Health and Safety Code Section 25356.1 requires the Department of Toxic Substances Control or the RWQCB to prepare or approve remedial action plans for sites where hazardous substances were released to the environment if they are listed as Superfund sites. The RWQCB has the responsibility to make decisions regarding cleanup and abatement goals and objectives for the protection of water quality.

#### **4.24.3.2 California Land Reuse and Revitalization Act**

This 2004 regulation provides immunity from liability for hazardous materials response costs, or damage claims to innocent landowners, bona fide purchasers, and contiguous property owners.

Similar to the 1996 CERCLA amendments, to encourage site cleanup, the California Land Reuse and Revitalization Act of 2004 was codified in the Health and Safety Code, Division 20, Chapter 6.82, Sections 25395.60 to 25395.105. This chapter encourages the development and redevelopment of urban properties, provides processes that ensure remediation to protect public health, safety, and the environment, and relieves innocent owners, bona fide prospective purchasers, and owners of property adjacent to contaminated sites of liabilities and responsibilities that should be borne by those who caused or contributed to the contamination.

#### **4.24.3.3 California Underground Storage Tank Program**

The California Underground Storage Tank Program is designed to prevent contamination from, and improper storage of, hazardous substances stored underground; to ensure that existing tanks are properly maintained, inspected, tested, and upgraded; and to ensure that new USTs meet appropriate standards. The California regulations are codified in the Health and Safety Code, Division 20, Chapter 6.7, Sections 25280 to 25299.8.

#### **4.24.3.4 Aboveground Petroleum Storage Act of 2007**

California adopted a statewide program to determine the amount and type of hazardous substances being stored in aboveground tanks under the Health and Safety Code Division 20, Chapter 6.67, Sections 25270 to 25270.23.

#### **4.24.3.5 Toxic Injection Well Control Act of 1985**

Injection of hazardous wastes is regulated pursuant to the Toxic Injection Well Control Act of 1985, Health and Safety Code Division 20, Chapter 6.5, Article 5.5, Sections 25159.10 to 25159.25. These regulations prohibit any injection of hazardous wastes into or above drinking water sources and prohibit injection of hazardous waste below drinking water sources, so as to prevent hazardous wastes from migrating to State drinking water, or otherwise endangering the environment.

#### **4.24.3.6 Safe Drinking Water and Toxics Enforcement Act**

The Safe Drinking Water and Toxics Enforcement Act (SDWTEA) was passed in August of 2003 and contains prohibitions preventing the contamination of drinking water with chemicals known to cause cancer or reproductive toxicity. The SDWTEA also requires a reasonable warning be provided before any person is exposed to chemicals known to cause cancer or reproductive toxicity.

#### **4.24.3.7 California Hazardous Waste Control Act**

Pursuant to this Act, the State is authorized to administer a hazardous waste program equivalent to the federal RCRA program. Generation, transportation, treatment, storage, and disposal of characteristic and listed hazardous wastes are regulated pursuant to the Health and Safety Code, Division 20, Chapter 6.5, Sections 25100 to 25250.28.

As part of hazardous waste regulation, the California Health and Safety Code, Division 20, Chapter 6.5, Article 13, Sections 25250 through 25250.28 regulates PCBs in used oil, and prohibits used oil recycling or reuse if the oil contains five parts per million or greater of PCBs.

#### **4.24.3.8 California Solid Waste Program (Public Resources Code 43000 et seq., California Code of Regulations Titles 14 and 27)**

Solid waste in California is regulated pursuant to Title 14, Division 7, and Title 27, Division 2 of the CCR. These regulations establish minimum standards for the handling and disposal of solid wastes. Both the SWRCB and the California Integrated Waste Management Board have oversight and approval authority over local enforcement agencies that permit and take enforcement action on solid waste management facilities. The Public Resources Code Sections 43200 to 43219, 43020, 43020.1, 43021, 43030, 43101 and 43103 created and govern the local enforcement agencies.



#### **4.24.3.9 Hazardous Materials Release Response Plans and Inventory**

California's equivalent to SARA was codified in the Health and Safety Code Division 20, Chapter 6.95, Sections 25500 to 25545. This code requires businesses to prepare plans relating to the handling and release or potential release of hazardous materials. It establishes minimum statewide standards for contents of plans, including location, type, quantity, and health risks of hazardous materials handled, used, stored, or disposed of, which could be accidentally released into the environment. It ensures firefighters, health officials, planners, public safety officers, health care providers, regulatory agencies, and other interested persons have access to the plans.

#### **4.24.3.10 State Water Resources Control Board Resolution No. 92-49**

SWRCB adopted Resolution Number 92-49, Policies and Procedures for Investigation and Cleanup and Abatement of Discharges, under Water Code Section 13304. This resolution establishes policies and detailed procedures for all investigations and remediation of any discharge that causes, or threatens to cause, conditions of soil, water pollution, or nuisance associated with migration of waste or fluid from waste management units. The resolution also requires coordination among other agencies including the DTSC, the USEPA, and local governances.

#### **4.24.3.11 Mosquito Abatement Act of 1915**

The Mosquito Abatement Act authorizes the formation of mosquito control districts in the State of California. It gives local governments the power to obtain revenues and form special districts to protect the public from the hazards of mosquito bites and mosquito-borne diseases.

#### **4.24.3.12 California Health and Safety Code: Division 3, Chapter 1, Article 4, Sections 2040, 2041, 2060 to 2065 (Mosquito and Vector Control District Law)**

Sections 2040 and 2041 of the California Health and Safety Code, Division 3, Chapter 1, Article 4 authorize mosquito control districts to conduct surveillance programs and studies, and take any and all necessary and proper actions to prevent the occurrence of, and abate or control, vectors and vectorborne diseases.

Sections 2060 to 2065 authorize mosquito control districts to abate a public nuisance by notifying the owner of the property that is causing the public nuisance, requiring the owner of the property to abate the nuisance within a specified time, and requiring the owner of the property to prevent the recurrence of the public nuisance. These sections also authorize the mosquito control districts to impose fines for non-compliance, and state that the owner of the property shall pay for the cost of abatement.

#### **4.24.3.13 California Government Code: Title 3, Division 2, Part 2, Chapter 8, Article 3, Section 25842.5**

This section of the California Government Code states that the Board of Supervisors may provide the same services and exercise the powers of mosquito abatement districts or vector control districts formed pursuant to the Mosquito Abatement and Vector Control District Law within both the unincorporated and incorporated territory of the county with the consent of the City Council and after holding a public hearing on the proposal. Notice of the hearing must be given, pursuant to Section 6061, in a newspaper of general circulation in the county.

#### **4.24.3.14 California Mosquito-Borne Virus Surveillance and Response Plan**

The California Mosquito-borne Virus Surveillance and Response Plan was developed to meet several objectives. Specifically, the Plan:

- Provides guidelines and information on the surveillance and control of mosquito-borne viruses in California, including West Nile, St. Louis encephalitis, and western equine encephalomyelitis viruses;
- Incorporates surveillance data into risk assessment models;
- Prompts surveillance and control activities associated with virus transmission risk level;
- Provides local and State agencies with a decision support system; and
- Outlines the roles and responsibilities of local and State agencies involved with mosquito-borne virus surveillance and response.

#### **4.24.4 Regional and Local Plans, Policies, and Regulations**

The following local regulations are applicable to public health and environmental hazards, but are discussed in other sections of this chapter, as indicated in parentheses:

- Glenn County General Plan (General)
- Colusa County General Plan (General)

### **4.25 Chapter 29: Public Services and Utilities**

#### **4.25.1 Federal Plans, Policies, and Regulations**

Federal regulatory agency involvement for public services and utilities is limited to review of a public service/utility provider's operation related to a specific resource area. Federal regulation can oversee issues such as the environment, energy, waterways, and fisheries. Associated agencies include USFWS, Reclamation, NMFS, USEPA, NRCS, USACE, U.S. Forest Service (USFS), USGS, and the Western Area Power Administration (WAPA).

The following federal regulation is applicable to public services and utilities, but is discussed in another section of this chapter, as indicated in parentheses:

- Americans with Disabilities Act (Recreation Resources)

##### **4.25.1.1 Critical Infrastructure Information Act of 2002**

The Critical Infrastructure Information Act (CIIA) is a component of the Homeland Security Act of 2002, which specifically addresses protection of high risk targets. The CIIA requires the Department of Homeland Security to evaluate and protect critical infrastructure including food and water systems, agriculture, health systems, emergency services, information and telecommunication, banking and finance, energy, transportation, chemical and defense industries, and national monuments and icons. The CIIA exempts disclosure of information regarding critical infrastructure from Freedom of Information Act requests due to the Homeland Security Act.

#### **4.25.1.2 National Fire Protection Association 1710 Standard**

This standard contains minimum requirements relating to the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by substantially all-career fire departments<sup>37</sup>. The requirements address functions and objectives of fire department emergency service delivery, response capabilities, and resources. This standard also contains general requirements for managing resources and systems, such as health and safety, incident management, training, communications, and pre-incident planning. This standard addresses the strategic and system issues involving the organization, operation, and deployment of a fire department and does not address tactical operations at a specific emergency incident.

The National Fire Protection Association 1710 Standard recommends a response time of six minutes or less for 90 percent of the time for initial fire suppression and/or emergency medical response. This takes into account dispatch time (one minute), turnout time (one minute), and travel time (four minutes).

#### **4.25.2 State Plans, Policies, and Regulations**

##### **4.25.2.1 Health and Safety Code Sections 13000 et seq.**

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code, and include regulations for building standards (as also set forth in the CBC), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

##### **4.25.2.2 Health and Safety Code Section 13145 and 13146**

The Department of Forestry and Fire Protection (CAL FIRE) provides wildland fire protection and implements the State Fire Marshal's regulations. The State Fire Marshal is apart from CAL FIRE executive staff. California Health and Safety Code Section 13145 and 13146 authorizes, with some exceptions, local fire chiefs, or their designees, to enforce State Fire Marshal regulations.

Section 13145 states that the State Fire Marshal, the chief of any city, county, or city and county fire department or district providing fire protection services, or a Designated Campus Fire Marshal, and their authorized representatives, shall enforce in their respective areas building standards relating to fire and panic safety adopted by the State Fire Marshal and published in the California Building Standards Code and other regulations that have been formally adopted by the State Fire Marshal for the prevention of fire or for the protection of life and property against fire or panic.

Section 13146 states that the responsibility for enforcement of building standards adopted by the State Fire Marshal and published in the California Building Standards Code relating to fire and panic safety and other regulations of the State Fire Marshal shall be as follows:

- (a) The city, county, or city and county with jurisdiction in the area affected by the standard or regulation shall delegate the enforcement of the building standards relating to fire and panic safety and other regulations of the State Fire Marshal as they relate to R-3 dwellings, as described in Section 1201 of Part 2 of the California Building Standards Code, to either of the following:
  - (1) The chief of the fire authority of the city, county, or city and county, or his or her authorized representative.

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<sup>37</sup> A department comprised 100 percent of career firefighters.

- (2) The chief building official of the city, county, or city and county, or his or her authorized representative.
- (b) The chief of any city, county, or city and county fire department or of any fire protection district, and their authorized representatives, shall enforce within its jurisdiction the building standards and other regulations of the State Fire Marshal, except those described in subdivision (a) or (d).
- (c) The State Fire Marshal shall have authority to enforce the building standards and other regulations of the State Fire Marshal in areas outside of corporate cities and districts providing fire protection services.
- (d) (d) The State Fire Marshal shall have authority to enforce the building standards and other regulations of the State Fire Marshal in corporate cities and districts providing fire protection services upon request of the chief fire official or the governing body.
- (e) The State Fire Marshal shall enforce the building standards and other regulations of the State Fire Marshal on all University of California campuses and properties administered or occupied by the University of California. For each university campus or property the State Fire Marshal may delegate that responsibility to the person of his or her choice who shall be known as the Designated Campus Fire Marshal.
- (f) Any fee charged pursuant to the enforcement authority of this section shall not exceed the estimated reasonable cost of providing the service for which the fee is charged, pursuant to Section 66014 of the Government Code.

#### **4.25.2.3 Health and Safety Code, Section 13801 et seq.**

Fire districts are formed and regulated pursuant to the California Health and Safety Code, Section 13801 et seq., also known as the Fire Protection District Law of 1987. The enabling legislation authorizes fire districts to provide fire protection, ambulance, and rescue services. Recognizing that the State's communities have diverse needs and resources, it was the intent of the Legislature in enacting this law to provide a broad statutory authority for local officials.

#### **4.25.2.4 California Government Education Code Section 17620(a)**

The governing board of any school district is authorized to levy a fee, charge, dedication, or other requirement against any construction within the boundaries of the district, for the purpose of funding the construction or reconstruction of school facilities.

### **4.25.3 Regional and Local Plans, Policies, and Regulations**

The following local regulations are applicable to public services and utilities, but are discussed in other sections of this chapter, as indicated in parentheses:

- Glenn County General Plan (General)
- Colusa County General Plan (General)

## **4.26 Chapter 30: Visual Resources**

### **4.26.1 Federal Plans, Policies, and Regulations**

#### **4.26.1.1 National Scenic Byways Program**

The National Scenic Byways Program is part of the U.S. Department of Transportation, FHWA. The program is a grass-roots collaborative effort established to help recognize, preserve and enhance selected roads throughout the United States. Since 1992, the National Scenic Byways Program has funded 3,049 projects for State and nationally designated byway routes in 50 states, Puerto Rico, and the District of Columbia. The U.S. Secretary of Transportation recognizes certain roads as All-American Roads or National Scenic Byways based on one or more archeological, cultural, historic, natural, recreational, and scenic qualities.

### **4.26.2 State Plans, Policies, and Regulations**

The following State regulation is applicable to visual resources, but is discussed in another section of this chapter, as indicated in parentheses:

- Delta Protection Act of 1992 (Surface Water Resources)

#### **4.26.2.1 California Scenic Highway Program**

The stated intent of the California Scenic Highway Program (Streets and Highways Code Sections 260 to 263) is to protect and enhance the natural scenic beauty of California's highways and adjacent corridors, through special conservation treatment. Official designation requires a local governing body to enact a Corridor Protection Program that protects and enhances scenic resources along the highway. A properly enforced program can:

- Protect the scenic corridor from encroachment of incompatible land uses such as junkyards, dumps, concrete plants, and gravel pits.
- Mitigate activities within the corridor that detract from its scenic quality by proper siting, landscaping, or screening.
- Prohibit billboards and regulate on-site business signs so that they do not detract from scenic views.
- Make development more compatible with the environment and in harmony with the surroundings.
- Regulate grading to prevent erosion and cause minimal alteration of existing contours and to preserve important vegetative features along the highway.
- Preserve views of hillsides by minimizing development on steep slopes and along ridgelines.
- Prevent the need for noise barriers (sound walls) by requiring a minimum setback for residential development adjacent to a scenic highway.

### **4.26.3 Regional and Local Plans, Policies, and Regulations**

The following local regulations are applicable to visual resources, but are discussed in other sections of this chapter, as indicated in parentheses:

- Tehama County General Plan (Land Use)
- Glenn County General Plan (General)
- Colusa County General Plan General)

## **4.27 Chapter 31: Power Production and Energy**

### **4.27.1 Federal Plans, Policies, and Regulations**

The following federal regulation is applicable to power production and energy, but is discussed in another section of this chapter, as indicated in parentheses:

- Clean Air Act (Air Quality)

#### **4.27.1.1 Federal Power Act of 1920**

The Federal Power Act (16 U.S.C. 791 to 828c; Chapter 285, June 10, 1920; 41 Stat. 1063) (FPA) was first passed in 1920 and has undergone several major amendments since. The FPA governs all interstate power and transmission system transactions, and it established FERC (originally called the Federal Power Commission) to regulate the interstate wholesale transmission market and to license all non-federal hydroelectric projects.

#### **4.27.1.2 Public Utility Regulatory Policies Act of 1978**

The Public Utility Regulatory Policies Act (PURPA) established an independent electric generator market, allowing non-utility companies to build power plants and obligating utilities to purchase renewable and higher efficiency power and energy from independent producers at the price it would otherwise cost the utility to produce the power and energy itself, based on its “avoided cost.” This act was largely responsible for the development of the renewable energy industry in the U.S. for the next 25 years.

#### **4.27.1.3 Electric Consumers Protection Act of 1986**

The Electric Consumers Protection Act of 1986 specifies that in addition to the power and development purposes for which licenses are issued, FERC shall give “equal consideration” to power and water facility development, energy conservation, recreational uses, and protection, mitigation of damage to and enhancement of fish and wildlife (including spawning grounds and habitat) as well as preservation of other aspects of environmental quality (16 U.S.C. 797(f)).

#### **4.27.1.4 Energy Policy Acts of 1992 and 2005**

The Energy Policy Acts established open access requirements for all transmission system owners and gave authority to FERC to mandate construction of new facilities to accommodate all access requests that are in the public’s interest. The 1992 Act amended Section 211 of the FPA (16 U.S.C. 824j) subsection (a) to read: “Any electric utility, federal power marketing agency, or any other person generating electric energy for sale or resale, may apply to the Commission for an order under this subsection requiring a transmitting utility to provide transmission services (including any enlargement of transmission capacity necessary to provide such services) to the applicant...[and that] the Commission may issue such order if it



finds that such order meets the requirements of Section 212, and would otherwise be in the public interest.” The Act specifies that the costs of such improvements can be recovered through the provider’s rates and tariffs, but that “such rates, charges, terms, and conditions shall promote the economically efficient transmission and generation of electricity and shall be just and reasonable, and not unduly discriminatory or preferential.”

The 2005 act authorized FERC to certify a national electric reliability organization to enforce mandatory reliability standards for the bulk-power system, under which the Western Electricity Coordinating Council has authority through the North American Electric Reliability Council and, ultimately, FERC to enforce electric reliability standards for bulk power transactions on the interconnected transmission system in the western half of North America. The 2005 act further strengthened transparency in the wholesale power market by granting FERC the authority to publish power, energy and interstate transmission service prices, and gave FERC approval authority over the sale or merger of entities under its jurisdiction greater than \$10 million in value.

The 2005 act also repealed the requirement under PURPA that utilities must purchase power from all qualifying facilities and small power producers at a rate based on the utilities’ avoided cost, providing FERC finds that a competitive electricity market exists and a qualifying facility has adequate access to wholesale markets; and it repealed the Public Utility Holding Company Act of 1935, which restricted the structure of holding companies of investor-owned utilities, but mandated that utilities give access to their books and records to FERC and State utility regulators.

#### **4.27.2 State Plans, Policies, and Regulations**

The following State regulations are applicable to power production and energy, but are discussed in other sections of this chapter, as indicated in parentheses:

- California Global Warming Solutions of 2006 (Climate Change and Greenhouse Gas Emissions)
- California Clean Air Act (Air Quality)
- California Renewables Portfolio Standard Program (Climate Change and Greenhouse Gas Emissions)

##### **4.27.2.1 Warren-Alquist State Energy Resources Conservation and Development Act**

The Warren-Alquist State Energy Resources Conservation and Development Act, also called the Warren-Alquist Act, was passed in 1974. The Warren-Alquist Act established the CEC and granted it statutory authority.

##### **4.27.2.2 The Electric Utility Industry Restructuring Act of 1996 (Assembly Bill 1890)**

AB 1890 attempted to establish a direct access market for all customers of the investor-owned utilities (IOUs) in the State, allowing customers to purchase energy services from other utilities or third-party providers. It established the Power Exchange, through which all IOUs purchased all power and energy services on the day-ahead and day-of market, and established the Independent System Operator (ISO) as the operator of the State’s privately owned transmission system, which includes contracting for various reliability services to maintain required reliability standards. The attempt failed, and the direct access and Power Exchange provisions were repealed later in 2001, but the California ISO still maintains operational control of the interconnected IOU transmission system, including contracting of reliability services, as well as conducts planning for transmission system improvements.

#### **4.27.2.3 California Integrated Energy Policy of 2002 (SB 1389)**

SB 1389 requires the CEC to conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. These assessments and forecasts will be used by the CEC to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the State's economy, and protect public health and safety.

#### **4.27.2.4 California Clean Water Act 316(b) Once-Through Cooling Policy**

On May 4, 2010, the SWRCB adopted a Policy regarding the Use of Coastal and Estuarine Waters for Power Plant Cooling (Policy). The administrative record for the Policy was approved by the Office of Administrative Law on September 27, 2010. The Policy became effective on October 1, 2010 when the California Environmental Quality Act Notice of Decision was submitted to the Secretary of Resources.

The Policy establishes technology-based standards to implement federal Clean Water Act §316(b) and reduce the harmful effects associated with cooling water intake structures on marine and estuarine life. The Policy applies to the 19 existing power plants (including two nuclear plants) that currently have the ability to withdraw over 15 billion gallons per day from the State's coastal and estuarine waters using a single-pass system, also known as once-through cooling. Closed-cycle wet cooling has been selected as Best Technology Available. Permittees must either reduce intake flow and velocity or reduce impacts to aquatic life comparably by other means.

The Policy is implemented through an adaptive management strategy by which the standards can be achieved without disrupting the critical needs of the State's electrical generation and transmission system. A Statewide Advisory Committee on Cooling Water Intake Structures has been established to review implementation plans and schedules and provide recommendations to the SWRCB at least annually. The SWRCB will consider the Statewide Advisory Committee's recommendations and make modifications to the Policy, as appropriate. The permittees' NPDES permits will be reissued or modified to conform with the Policy.

#### **4.27.3 Regional and Local Plans, Policies, and Regulations**

The following local regulations are applicable to power production and energy, but are discussed in other sections of this chapter, as indicated in parentheses:

- Glenn County General Plan (General)
- Colusa County General Plan (General)

#### **4.27.3.1 Regional Clean Air Incentives Market (RECLAIM) Program for NO<sub>x</sub> and SO<sub>x</sub> of 1993**

RECLAIM is a market incentive program designed to allow facilities flexibility in achieving emission reduction requirements for oxides of nitrogen (NO<sub>x</sub>), and oxides of sulfur (SO<sub>x</sub>) pursuant to the Air Quality Management Plan using methods which include, but are not limited to: add-on controls, equipment modifications, reformulated products, operational changes, shutdowns, and the purchase of excess emission reductions.

## 4.28 Chapter 34: Growth-Inducing Impacts

### 4.28.1 Federal Plans, Policies, and Regulations

#### 4.28.1.1 National Environmental Policy Act Regulations

The CEQ regulations require an EIS to consider indirect effects of a project, which are often related to growth-inducing effects (40 CFR 1508.8(b)), as described below:

*“Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.”*

### 4.28.2 State Plans, Policies, and Regulations

#### 4.28.2.1 California Environmental Quality Act Guidelines

CEQA Guidelines (§15126.2(d)) require that an EIR evaluate the growth-inducing impacts of a project. The EIR must:

*“Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects.”*

*“Discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.”*